

SOUTHERN TEXTILE BULLETIN



VOL. 40

CHARLOTTE, N. C., JULY 2, 1931

No. 18

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VOL. 40

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Sloan Cites Inadequacy of Prices

GEORGE A. SLOAN, president of the Cotton-Textile Institute, authorizes the following statement regarding the inadequacy of present cotton textile prices, with particular reference to narrow sheetings:

"Much interest is being aroused by the announcements from many cotton mill managements that they will suspend operations for vacation periods at various times during the summer months. Following so closely the resolution recently adopted at a group meeting of narrow sheetings manufactures as a means of urging complete abandonment of night operation and concentration of production and employment on the day shift, these policies are regarded as indicating that the market situation in respect to both demand and prices is one requiring serious attention of mill executives.

"The Cotton-Textile Institute believes it will be helpful and constructive to disclose some of the facts that have apparently led to these noteworthy announcements. It would seem that there are two important factors being considered, namely, the amount of demand which may be expected as compared with the facilities available for meeting it, and the results to the mills and mill employees if this demand is met at current prices. These situations, in particular respect to narrow sheetings, are discussed herein.

"The average weekly production of narrow sheetings during May, 1931, considerably exceeded the average weekly production for the entire period from January 1, 1930 to May 1, 1931, in spite of the fact that the manufacturing margin between sheeting prices and cotton costs was only 8.0c during May as compared with an average margin of 9.7c between January 1, 1930, and May 1, 1931.

"The mills are now entering upon a seasonal period of slack demand. The average demand for these goods during July, August and September for the last three years has been equivalent to the production of about 95 per cent of the available narrow sheetings looms if operated a single shift of 55 hours weekly. Moreover, this average demand covers the years 1928, 1929 and 1930, and it is well known that the demand in 1930, due to general business depression, was considerably lower than in the preceding two years. This condition bids fair to continue in the current year. The consumption of narrow sheetings during July, August and September, 1930, was equivalent to the production of only 79 per cent of the available narrow sheetings looms if these were operated 55 hours. Thus it seems likely that if the demand this summer were as good as last summer—even if standard running time were universally regarded as 55 hours—it would call for not more than 80 per cent operation. But, judging by the first five months of this year, weekly shipments are averaging 10 per cent lower than for 1930.

Accordingly, we cannot reasonably count on any demand this summer that will absorb more than about 70 per cent of the production of all narrow sheetings looms on a 55-hour basis.

"It is realized that narrow sheetings mills very generally confine their efforts to day operation. The latest available statistics show that 84 per cent of the loom hours are represented by the day schedule of these mills. But it will be seen that there are some few such mills that still undertake to operate day and night. In view of this fact, Mr. Munroe, manager of the Institute's Cost Section, recently conducted a study with the intention of establishing figures which may be regarded as minimum costs for narrow sheetings manufactured in double-shift mills. These figures have been developed after taking full account of all known cost reductions recently effected and they assume that no higher hourly wage rates will be paid at night than during the day. It has heretofore been customary to pay higher rates to night workers. Thus we have striven to present double-shift costs in as favorable a light as can be justified.

"The Institute's Cost Section then conducted a study to determine the inescapable expenses which the mills must expect to incur when completely idle. In the tabulation below the losses resulting when operating double time at these low costs and at present cotton and cloth prices are compared with the losses incurred when the plant is idle. The prices for cotton and cloth are those which were in effect on June 17th. In each case the figures shown represent an average of six staple sheeting constructions, including two each from classes A, B and C.

AVERAGE LOSS ON SIX NARROW SHEETINGS
(Cotton and Cloth Prices as of June 17, 1931)

| | Double shift with specially economized costs | Double shift with plant idle |
|--|--|------------------------------------|
| Loss per lb., after depreciation and interest | 4.69c | 2.80c |
| Loss per lb., including depreciation, before interest | 2.95 | 1.06 |
| Loss per lb., before depreciation and interest | 1.64 | .72 |

"The figures indicate that a double shift mill, producing 100,000 pounds weekly with its costs reduced to a minimum, will lose \$1640 per week before depreciation or interest. On the other hand, the same mill, if idle, will lose only \$720 per week before depreciation or interest. It is thus evident that there is no justification for full operation of any narrow sheetings mill or for acceptance of orders on present price levels. A mill will

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Modern Textile Machinery the Result of Research and Comprehensive Engineering*

BY ALBERT PALMER

Research Assistant to General Manager, Crompton & Knowles Loom Works

THE condition of business during the past few years has forced the industrial world to turn from the activities of production to those of study and development. Manufacturers, hitherto engaged in making products for which there was a demand, suddenly found themselves looking for customers. No one wanted more products of the conventional design. New and different things were needed to satisfy new requirements.

The textile industry, including both the mills and the manufacturers of mill equipment, is probably the best example of an industry in which this change is taking place. For years it prospered from a trade in certain conventional products. One section of the cotton textile industry, for instance, conducted a very profitable business in gingham. Beginning with 1868, the business as reflected in the number of gingham looms built, grew until the year 1928. Records show that in the 60 years from 1868 to 1928 a few more than 62,000 looms were installed. In 1925 the business began to fall off and decreased rapidly, until in 1928 not a single new machine of the type in question was produced. The gingham industry, for the present at least, is a thing of the past. Its product has virtually been displaced by other fabrics in the manufacture of which its machinery is practically useless. The result is that the mills which were engaged in this section of the cotton textile industry either have reorganized their methods and equipment or have gone out of business.

To an industrial world in which the strides of progress have been great, the backwardness of the textile mills in buying improved machinery has been incomprehensible. In consequence both the builders and the users of mill equipment have been criticised severely by those who are familiar with other industries. Measured by the replacement policies of other industries the progress of the textile industry has been slow. But that slowness has had some justification. Textile machinery is peculiar in that its individual units are not independent. Each unit is a part of an operating chain, the links of which are held together by auxiliary equipment, such as bobbins and warp beams, which is used to convey the product from one machine to the next. A radical change in one unit affects some, if not all, of the others. This situation has delayed the adoption of new ideas.

The advantage of uniformity, too, has been a deterrent to the use of new machinery. When a mill enlarged its weaving department it bought machines like those which it already had. This practice simplified the problems of training the operatives, of working out the complicated pattern chains that are necessary, of scheduling production, and of stocking repair and supply parts.

With the changes that have taken place recently, the attitude toward new developments has been altered. New fabrics necessitate the use of new machinery. Competition likewise, through the medium of production costs and quality, draws attention to the possibility of improvement. An incentive to produce radically different machinery has therefore been created.

To satisfy the present and future needs of the mills, a new method of approach is being used by some of the textile machinery builders. Trained men are being sent out to study the equipment under operating conditions. The efforts of these investigators are directed toward a thorough understanding of the three problems which concern the manufacturing departments of the textile industry: namely, those that relate to low cost, high quality, and quick deliveries.

In the loom-building industry the research work started with a study of cotton mills. First the scope of the field was studied from the angle of production costs. Although in a great many mills the cost analyses were found to be very inadequate, they were good enough to show that more detailed investigation would yield important results. The preliminary reports indicated that the cost of a yard of cloth could be divided approximately as given in the two examples of Table 1.

TABLE 1—CONSTITUENTS OF COST IN TYPICAL COTTON FABRICS

| Item of cost | Per cent of total mfg. cost | | Per cent of process cost | |
|--------------|--------------------------------|--------|--------------------------|--------|
| | Case 1 | Case 2 | Case 1 | Case 2 |
| Cotton | 26 | 31 | — | — |
| Making yarn | 29 | 31 | 39 | 45 |
| Weaving | 41 | 25 | 56 | 36 |
| Finishing | 4 | 13 | 5 | 19 |
| Total | 100 | 100 | 100 | 100 |

These figures showed that the weaving cost represents a substantial part of the cost of manufacturing a yard of cotton fabric. Accordingly consideration was given to the fundamentals of the problem of reducing weaving cost.

COST FUNDAMENTALS

In a weave room, cost finding is relatively simple if the matter is treated on the machine basis. But two items are needed—the cost of running the machine during a given period of time, and the number of yards produced by the machine during the same period. From these figures the cost per yard can be obtained by dividing the former by the latter.

To find the cost of running a loom over any period of time, such as a week, is not a very difficult matter, provided the elements of cost are appreciated. In consisting of the cost of direct labor, indirect labor, and overhead, they are no different from any other manufacturing costs.

*Contributed by the Textile Division for presentation at the Hartford, Conn., meeting of The American Society of Mechanical

For the purposes of illustration an example taken from the cases that were studied is given in Table 2.

TABLE 2—LABOR COSTS

| Job | Looms per hand | Weekly wage | Cost per loom per week | Per cent of total |
|----------------------|----------------|-------------|------------------------|-------------------|
| Weaver | 10 | \$28.00 | \$2.80 | 76.7 |
| Battery hand | 60 | 15.00 | 0.25 | 6.9 |
| Fixer | 50 | 30.00 | 0.60 | 16.4 |
| Total direct labor | | | \$3.65 | 100.0 |
| Overseer | 750 | \$60.00 | \$0.08 | 9.4 |
| Second hand | 750 | 45.00 | 0.06 | 7.0 |
| Third hand | 750 | 37.50 | 0.05 | 5.9 |
| Clerk | 375 | 18.75 | 0.05 | 5.9 |
| Spare fixer | 187 | 30.00 | 0.16 | 18.8 |
| Filling carrier | 107 | 15.00 | 0.14 | 16.5 |
| Smash piecer | 250 | 27.50 | 0.11 | 12.9 |
| Cloth hand | 750 | 15.00 | 0.02 | 2.4 |
| Chain boy | 375 | 15.00 | 0.04 | 4.7 |
| Bobbin boy | 187 | 15.00 | 0.08 | 9.4 |
| Sweeper | 750 | 15.00 | 2.02 | 2.4 |
| Cloth inspector | 375 | 15.00 | 0.04 | 4.7 |
| Total indirect labor | | | \$0.85 | 100.0 |

The overhead charges which apply to the case can also be tabulated as shown in Table 3.

TABLE 3—OVERHEAD CHARGES

| | Cost per loom per week | Per cent of total |
|--|------------------------|-------------------|
| Taxes and insurance on buildings | \$0.07 | 2.9 |
| Depreciation on buildings | 0.11 | 4.6 |
| Taxes and insurance on machinery | 0.20 | 8.3 |
| Depreciation on machinery | 0.51 | 21.3 |
| Power | 0.30 | 12.5 |
| Humidity | 0.05 | 2.1 |
| Heat | 0.05 | 2.1 |
| General expense: office, superintendent, miscellaneous | 0.60 | 25.0 |
| Designing | 0.06 | 2.5 |
| Repairs and supplies | 0.30 | 12.5 |
| Reeds and shuttles | 0.15 | 6.2 |
| | \$2.40 | 100.0 |

In summarized form the cost per loom per week is readily obtained from these tables and is given by the following figures:

| | Cost per loom per week | Per cent of total |
|----------------|------------------------|-------------------|
| Direct labor | \$3.65 | 52.9 |
| Indirect labor | 0.85 | 12.3 |
| Overhead | 2.40 | 34.8 |
| | \$6.90 | 100.0 |

With this information before him, the machinery manufacturer was able at once to see the greatest possibilities for improvement. Obviously they lay in direct labor and overhead. Of the former, all the component items were susceptible to improvement. Of the latter, repairs and supplies, and taxes, depreciation, and insurance on the machinery offered similar opportunities.

COST REDUCTION

In the case of direct labor, the cost could be decreased by reducing the amount of work which each loom required of the weaver, the battery hand, and the loom fixer. Through such an accomplishment, each of the operatives could tend, with no more effort, a larger number of machines. Obviously, then, the next step was to find out how these workers spend their time. The procedure by which this work was done and the manner in which the findings were used to change the design of the looms will be treated later.

The overhead items are largely dependent upon the cost of the loom to the mill. If the price of the machine

is low, the cost of taxes, depreciation, insurance, and supplies is also low. Similarly repair charges are minimized in equipment which is so ruggedly constructed that the adjustment and breakage of parts is infrequent, and which is so simple that repairs can be made readily where they are necessary. In other words, the problem of reducing overhead was one not only to be studied in the field, but also in the plant of the loom manufacturer. To analyze the work of the mill mechanics was not enough. The design of each part of the machine had to be examined from the viewpoint of cost, and had to be changed to make the fabrication of the part possible by the most modern methods.

A little thought reveals the fact that for a given fabric, the number of yards produced by a loom in a given period of time depends upon two elements: namely,

1. The speed at which the machine runs, and
2. The percentage of the period of operation which represents actual running time.

Speed is clearly a function of construction. A loom which has parts that fail under the stresses of rapid movement must operate at a low speed. One that has strong parts can run at a high speed, provided it can handle gently the yarns of a delicate fabric. The question, then, of obtaining high speed was one of studying the action of the loom under high-speed conditions. A thorough knowledge of the weak points resulted.

Closely allied with the speed analysis was the investigation of the operating efficiency. To reduce the time lost through the adjustment and the repair of parts was one consideration. To eliminate idle time arising through the automatic stopping of looms upon the breaking of a thread was another. Of the two the latter was found to be the more important, especially where the weaver was tending a large number of machines. A reduction in the rate of stoppage through changes in design decreased the amount of idle time for each machine, not only by diminishing the number of stops per machine, but also by lessening the possibility that more than one machine would stop at once.

METHODS OF ANALYSIS

The procedure for observing looms under operating conditions was planned very carefully. Preliminary studies were made to determine the nature of the problem. Suitable equipment and a series of forms were developed, and an outline of standard practice was prepared so that the observations of the group of research men who went out would be made in a uniform manner. The observer follows the weaver whose set of looms he is studying, and records the time involved in every operation that is performed. He also keeps a record of any time that is lost during the test.

The information that is recorded is summarized at the end of the period of observation and is transferred to the forms of Fig. 2. These latter are arranged so that a complete diagnosis of the case can be made. Under Section 2, Summary of Loom Production, the capacity of the looms is accounted for. From these figures the main sources of lost time can be seen.

Section 3, Analysis of Loom Operations, provides a measure of the operating efficiency of both the machines and the operative. This information not only serves as the basis for corrective action, but also, with the figures of Section 4, Analysis of Weaver's Time, provides a means for determining the number of looms that the weaver should operate.

RESULTS OF OBSERVATION

The observations yielded information that pointed
(Continued on Page 8)

Committee D-13 Proposes New Standards

FOUR new tentative standards covering specifications and test methods for cotton goods for rubber and pyroxylin coating, specifications for enameling duck for the tire industry, specifications for 0.007-inch cotton tape and a method for determining relative humidity, were recommended in the report of Committee D-13 on textile materials, presented at the 34th annual meeting of the American Society for Testing Materials, in Chicago.

The committee also recommended proposed revision of standard specifications for tolerances and test methods for electrical silk and cotton tapes, and proposed revision of tentative specifications for the chafer tire fabrics, tentative specifications for tolerances and test methods for rayon, and tentative methods for identification of textile fibers and their quantitative determination of mixed goods.

The recommendations of the committee regarding standards and tentative standards under its jurisdiction are summarized below, with comments, where necessary, being given under subcommittee activities.

I.—New Tentative Standards.—The committee recommends for publication as tentative the following four new tentative standards:

Proposed Tentative Specifications and Test Methods for Cotton Goods for Rubber and Pyroxylin Coating;

Proposed Tentative Specifications for Enameling Duck for the Tire Industry;

Proposed Tentative Specifications for 0.007-in. Cotton Tape;

Proposed Tentative Method of Determining Relative Humidity.

II.—Proposed Revision of Standard.—The committee recommends that the Standard Specifications for Tolerances and Test Methods for Electrical Silk and Cotton Tape (D 259-27) be completely revised, as appended hereto. The revisions consist of a deletion of the word "electrical" from the title, a substitution of the word "tape" for "fabric" or "narrow fabric" whenever it occurs in the specifications, a change in the wording of Sections 4, 6, 7, 10, 11, and 14 and the addition of a new Section 20 which takes the place of the note in the present Section 16. Due to the extensive nature of the changes, the revision has been issued in the form of a separate tentative standard which will supersede the present standard when adopted.

III.—Proposed Revisions of Tentative Standards.—The committee recommends that the following two tentative specifications and one tentative method be revised and continued as tentative:

Tentative Specifications for Chafer Tire Fabrics (D 316-30 T), completely revised as appended hereto. The revisions consist chiefly in a rearrangement of the subject matter and the inclusion of methods of testing.

Tentative Specifications for Tolerances and Test Methods for Rayon (D 253-31T) completely revised as appended hereto. Sections 14 to 21 inclusive, which describe a preferred and alternate method of testing for size or yarn number (denier) of rayon, have been rewritten and replaced by 10 new paragraphs. The substance of these changes is to substitute the present alternate method for the preferred, and vice versa, and to

make other necessary editorial changes. Section 33 has been revised by omitting the Note and changing the standard moisture regain of nitro-cellulose, viscose, and cuprammonium rayons from 14.5 per cent of the dry weight to 11 per cent.

Tentative Methods for Identification of Textile Fibers and Their Quantitative Determination in Mixed Goods (D 276-30 T). In these tentative methods the committee recommends that the entire procedure for Differentiation of Rayons be deleted and a new Identification procedure substituted; this new procedure being identical with the methods for identification of rayons described in Sections 3 to 6 of the Tentative Specifications for Tolerances and Test Methods for Rayon (D 258 T).

IV.—Tentative Standards Continued as Tentative.—The committee recommends that the following tentative standards be continued as tentative for another year without revision:

Tentative Specifications for Tolerances and Test Methods for Knit Goods (D 231-28 T).

Tentative Specifications and Tests for Cuban (Jute) Raw Sugar Bags (D 275-27 T).

Tentative Methods of Testing Grease Wool and Allied Fibers for Scoured Content (D 232-25 T); and

Tentative Definitions of Terms Relating to Textile Material (D 123-30 T).

SUBCOMMITTEE ACTIVITIES

Subcommittee A-1 on Cotton (K. B. Cook, chairman):

Section I on Cotton (H. H. Willis, Chairman).—This section will undertake some experiments on raw cotton manufactured into certain counts of yarn with a view to studying three properties, (1) flexing resistance (2) ability to stand repeated stress and (3) strength. The tests and check tests on representative samples of these yarns will be conducted in a modern laboratory under carefully controlled atmospheric conditions.

Section II on Cotton Yarns and Threads (R. H. Adams, chairman).—This section is making a survey to determine the advisability of preparing specifications for sewing thread and cotton yarn.

Section III on Light and Medium Cotton Woven Fabrics (R. T. Fisher, chairman).—This section is presenting for publication as tentative proposed Specifications and Test Methods for Cotton Goods for Rubber and Pyroxylin Coating. The acceptance of this proposed tentative standard will add a large group of certain staple sheetings, drills, twills, broken twills, and sateens to the list of fabrics covered by specific specifications. This specification in its original form was drawn up under the auspices of The Association of Cotton Textile Merchants of New York, The Cotton-Textile Institute, Inc., The Association of Pyroxylin Coated Fabric Manufacturers, and The Automobile Fabric Manufacturers Division of the Rubber Manufacturers Division of the Rubber Association, Inc., by a committee composed of both manufacturers and consumers. It is presented here with only such minor changes as are necessary to make it conform to the usual form.

Section IV on Tire Fabrics (B. H. Foster, chairman).—This section is presenting for publication as tentative Proposed Specifications for Enameling Duck for the Tire

Industry. It has also made a complete revision of the Tentative Specifications for Chafer Tire Fabric (D 316-30 T), and recommends that the specifications as thus revised, as appended hereto, remain tentative for another year. Both of the above-named specifications have been made more complete by the inclusion of tolerances and test methods.

The section also conducted a test for the purpose of determining the proper strength correction factors for chafer fabrics and enameling duck. Seven members of the committee took active part in this test. From the results obtained the committee has set a correction factor of 4.7 for chafer fabrics, and 4.2 for enameling duck, and the method of correcting strength to a standard moisture regain has been included in the test methods for both types of fabrics.

Work has been started on collecting data for the purpose of drawing up tentative specifications for breaker fabrics.

Section V on Hose, Belt and Numbered Duck (B. L. Whittier, chairman).—This section has concluded the study, mentioned in the last annual report, of a new type of jaw for testing heavy fabrics. The tests did not show any better results and the subject has been dropped.

The section has canvassed about 25 rubber companies in regard to the advisability of preparing standard specifications for hose and belting duck. Lack of interest on their part has caused the section to defer action on specifications for these materials until a later date. It is planning to hold a special meeting in the near future to determine on its next line of activity.

The chairman of this section represented Committee D-13 at a recent conference in Washington under the auspices of the Department of Commerce to consider matter relating to tent ducks and tarpaulins.

Section VI on Narrow Fabrics (F. S. Mapes, chairman).—This section is presenting for publication as tentative Proposed Specifications for 0.007-in. Cotton Tape. It has also completed for publication as tentative a revision of the Standard Specifications for Tolerances and Test Methods for Electrical Silk and Cotton Tapes (D 259-27).

This section is planning to prepare specifications for tolerances and test methods for braided tubular cotton sleeving. It is conducting a study of methods for determining the sizing content in cotton tapes, and further plans to correlate such information as is available for determining their acidity or alkalinity.

Section VII on Osnaburg Cement Bags (W. D. Lober, chairman).—This section reports that its inactivity is due to the continuing trend toward the use of paper bags which is practically eliminating the use of osnaburgs for this purpose.

Subcommittee A-2 on Rayon (A. M. Tenney, chairman):

Section I on Rayon (A. M. Tenney, chairman).—The activities of this section during the year have resulted in two revisions of the Tentative Specifications for Tolerances and Test Methods for Rayon (D 258-27 T). The first change was in the methods of identification of the various types of rayon. In this work this section has received the collaboration of Section I on Methods and Machines. The identification methods originally specified were entirely rewritten and more satisfactory procedures substituted. This revision was submitted by Committee D-13 to Committee E-10 on Standards for publication as tentative. The revision as recommended by the committee were approved by Committee E-10 on February 20,

1931. The revised identification methods have been included in the revised tentative standard.

The committee is also recommended another revision of these tentative specifications which calls for an interchange of the present alternate and preferred methods of determining yarn size (denier); it also makes an important change in the standard of moisture regain for nitrocellulose, viscose, and cuprammonium rayons, reducing it from 14.5 per cent to 11 per cent. These changes have been incorporated in the revised specifications which are recommended for continuation as tentative for another year.

The section has continued its co-operation with the Bureau International pour la Standardisation des Fibres Artificielles, Basle, Switzerland, for the purpose of producing as complete an agreement as possible between the methods used by the European organization and the American Society for Testing Materials.

Section II on Rayon Fabrics (A. Sommaripa, chairman).—Under the direction of the chairman of this section, outside research work has been carried on as to the best methods of testing rayon fabrics. It is planned to hold a special meeting of this section in the near future to consider the preliminary reports on this work.

Subcommittee A-4 on Asbestos:

Section I on Asbestos Textiles (J. M. Weaver, chairman).—This section in the near future expects to present for approval a revision of the Tentative Specifications for Asbestos Tape for Electrical Purposes (D 315-29 T).

The increase in the personnel of this section is a sign of healthy interest in its work. The section is considering the question of developing a method for the determination of the magnetic iron content of asbestos. This is obviously a problem of great importance to users of asbestos for electrical purposes.

Subcommittee A-5 on Jute, Ramie and Linen:

Section I on Sugar Bags (A. E. Davieau, chairman).—In respect to the Tentative Specifications and Tests for Cuban (Jute) Raw Sugar Bags (D 275-27 T), the situation seems to be unchanged from a year ago. Efforts are still in progress to secure the recognition of these specifications by the Indian Jute Mills Association of Calcutta and in view of this the recommendation is made that the specifications be continued as tentative for another year.

Subcommittee B-1 on Methods and Machine (W. D. Appel, chairman):

Section I on Methods (W. D. Appel, chairman).—During the past year this section has been working on the elimination of unnecessary variations in similar test methods used in different specifications.

It has collaborated with Section I of Subcommittee A-2 on Rayon upon the problem of identification of the various types of rayon. Satisfactory methods have been taken by that section. This section is recommending that the same changes be made in the Tentative Methods for Identification of Textile Fibers and Their Quantitative Determination in Mixed Goods (D 276-30 T), and that the specifications as thus revised be continued as tentative for another year.

The section has under consideration the need for a test for slippage, particularly in connection with rayon and silk fabrics.

Section II on Machines (H. J. Ball, chairman).—The work of this section in its study of abrasion methods and the measurement of their effect has been temporarily interrupted because of the demand upon the time of the chairman, who is at present serving as chairman of the entire Committee D-13.

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Modern Textile Machinery the Result of Research and Comprehensive Engineering

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directly to a number of major problems. In the first place, the average productive efficiency in the mills where the studies were made was not much over 75 per cent. When consideration is given to the fact that the tests were made under the best existing conditions and that normally, because of warp changes and miscellaneous delays, the long-time efficiency of most mills is at least 10 per cent lower than this time-study efficiency, the situation is not commendable. That it results largely from a lack of balance between the work that the weaver is capable of doing and that demanded of him by the looms is clear when records show that in many instances the looms were idle, waiting for the attention of the weaver, during 15 per cent of the working day. This condition can be remedied only by giving the weaver less work, either by decreasing the number of looms tended or by decreasing the rate of stoppage per loom. Obviously in the interests of low cost the latter course is preferable.

An approach to the problem of reducing stoppage was made through an analysis of the test records. This study showed that approximately 85 per cent of the stoppage of an automatic cotton loom could be attributed to three items:

| | Per cent |
|--|----------|
| Warp breakage | 45 |
| Filling breakage at the transfer of the bobbin | 15 |
| Other filling breakage | 25 |
| Total | 85 |

Warp breakage, in addition to being of first importance because of the number of times it occurs, is of even greater moment when time is considered. From 60 to 75

per cent of the weaver's weaving time (time spent on Operations 1 through 18, Fig. 2) is devoted to the piecing of broken warp ends. Breakage of filling at the transfer of the bobbin takes about 6 per cent, and other filling breakage about 13 per cent.

All these difficulties were analyzed. In the case of warp breakage, for example, studies were made to determine the causes for the breaks. About a third could be traced to knots and slubs, but for the majority there was no immediate explanation. Accordingly the location of the breaks was studied. From the back to the front of the loom the average distribution was found to be as given in Table 4.

TABLE 4—PERCENTAGE DISTRIBUTION OF WARP BREAKS IN COTTON LOOMS

| | Gingham loom | Dobby loom |
|-------------------|--------------|------------|
| Beam | — | 3 |
| Whip roll | 2 | 2 |
| First lease rods | 1 | 1 |
| Warp stop | 10 | 5 |
| Second lease rods | 21 | 10 |
| Harnesses | 46 | 63 |
| Reed | 19 | 15 |
| Fell of cloth | 1 | 1 |
| Total | 100 | 100 |

The results of a similar study showing the distribution of the warp breaks from one selvage to the other are shown in Fig. 3. The conclusions to be drawn are that the greatest breakage is in the region of the harnesses and the reed near the selvages. This information led to improvements in the lay, the harness, and the picking motions.

Filling breakage was analyzed in a like manner. Both causes and locations were considered. Fig. 4, for instance, gives the common conditions in which both the

Test No. 442

Customer No. 11
Cotton King Automatic Cam
L.O. 2541

Date September 14, 1928

1. GENERAL DATA

Specifications 44" b.s., 284 bar., 441 box
 Number of looms 14
 Length of test in hours 0-3/4
 Speed in picks per minute 187 - 180
 Type of fabric Coarse Orlingham
 Width in reed 34
 Warp 1/20 1/2a
 Sley 69.14
 Number of harnesses 2
 Filling Cotton 1/40a
 Picks per inch 68
 Number of looms 2
 Dry temperature in degrees 75.2
 Relative humidity in per cent 72.2

2. SUMMARY OF LOOM PRODUCTION

Actual picks woven 1,094,500
 Capacity picks 1,169,175
 Per cent production 93.61
 Loom hours of production 114.67

| | Classification | Loom-Minutes | Per Cent |
|---|----------------|--------------|----------|
| Producing time | | 6890.34 | 93.61 |
| Weaver's weaving time | | 186.45 | 2.54 |
| Filler's filling time | | 77.75 | 1.06 |
| Last time, looms stopped, not receiving attention of weaver | | 192.96 | 2.62 |
| Last time, looms stopped, not receiving attention of filler | | 12.50 | .17 |
| Other lost time | | .00 | .00 |
| Total | | 7350.00 | 100.00 |

3. ANALYSIS OF LOOM OPERATIONS

| | Description | Number of Operations | Total Minutes | Minutes Per Operation | Minutes Per Loom-Hour |
|-----------------|---------------------------|----------------------|---------------|-----------------------|-----------------------|
| 1 | Warp break | 114 | 108.33 | .953 | .927 |
| 2 | Pick out (warp) | 2 | 8.48 | .3240 | .037 |
| 3 | The loom | 1 | 1.89 | .1890 | .009 |
| 4 | Loom end | 8 | 2.70 | .338 | .034 |
| 5 | Clearing warp | 1 | .34 | .340 | .003 |
| 6 | Break at transfer | 30 | 18.34 | .431 | .413 |
| 7 | Other filling break | 85 | 35.17 | .414 | .308 |
| 8 | Pick out (filling) | 4 | 7.87 | .1968 | .035 |
| 9 | Loom filling | 0 | .00 | .000 | .000 |
| 10 | Run out | 0 | .00 | .000 | .000 |
| 11 | Feeder failed to indicate | 0 | .00 | .000 | .000 |
| 12 | Knock off at transfer | 4 | .91 | .228 | .035 |
| 13 | Reel transfer | 4 | 2.80 | .560 | .035 |
| 14 | Changing shuttle | — | — | — | — |
| 15 | Reeling off | 11 | 2.22 | .202 | .019 |
| 16 | Removing cloth | 1 | 1.17 | .1170 | .010 |
| 17 | Miscellaneous | 7 | 2.13 | .304 | .021 |
| 18 | Unknown | 2 | .88 | .017 | .006 |
| | Total | 282 | 186.45 | .661 | 2.482 |
| Filler's Op. 18 | Loom filling | 12 | 77.75 | 6.472 | 1.05 |
| Other | 80 Smash | 0 | .00 | .000 | .000 |
| Opers. | 81 Warp out | 0 | .00 | .000 | .000 |
| Opers. | 82 Miscellaneous | 0 | .00 | .000 | .000 |
| | Total | 0 | .00 | .000 | .000 |
| | Grand Total | 284 | 264.50 | .899 | 2.564 |

Test No. 442

Date September 14, 1928

4. ANALYSIS OF WEAVER'S TIME

| Classification | Minutes | Per Cent |
|--|---------|----------|
| Weaver's weaving time (measured) | 186.45 | 55.51 |
| Filling magazine or shuttle (measured) | 82.29 | 15.67 |
| Other working time (measured) | 2.41 | .46 |
| Personal time (measured) | 5.53 | 1.19 |
| Idle time (measured) | 61.51 | 11.72 |
| Time off job (measured) | 9.70 | 1.85 |
| Inspecting and waiting time (computed) | 179.61 | 33.60 |
| Total | 525.00 | 100.00 |

5. ANALYSIS OF FILLER'S TIME

| Classification | Minutes | Per Cent |
|-----------------------------------|---------|----------|
| Actual working time (measured) | | |
| Inspecting time (measured) | | |
| Personal time (measured) | | |
| Idle time (measured) | | |
| Time off job (measured) | | |
| Time not accounted for (computed) | | |
| Total | | |

No Analysis Made

6. ANALYSIS OF BOBBIN CONSUMPTION

Bobbins used per loom-hour 5.15

Bobbins transferred per loom-hour 5.01

Length of run per bobbin in minutes 11.65

Record by

Computation by

Form 1000-20-1-10

FIG. 2. SUMMARY OF TEST DATA

outgoing and incoming ends of filling are found when the loom stops because of filling breakage at the transfer of a bobbin in an automatic loom. The information that resulted from this investigation led to numerous changes in the magazine, particularly in the bobbin giveways and in the thread holder, which greatly reduced this source of stoppage.

IMPROVEMENT OF QUALITY

Next to the cost of production, quality is of vital inter-

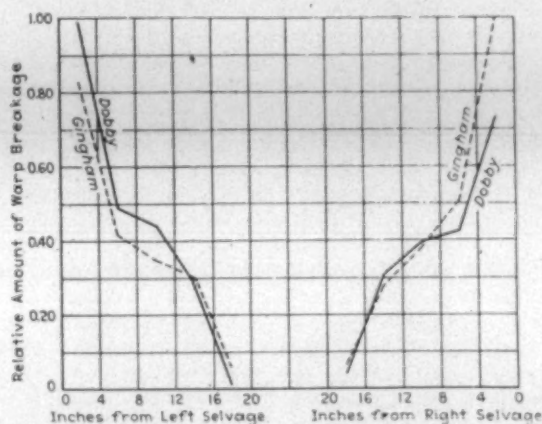


FIG. 3. DISTRIBUTION OF WARP BREAKS FROM ONE SELVAGE TO ANOTHER

(Averages of observations made on 112 automatic gingham looms during 705 running loom-hours, and on 40 automatic dobby dress-goods looms during 264 running loom-hours)

est to the mills. While at one time the question of defective cloth may have been considered lightly, it no longer can be so regarded. Competition, the necessity of selling fabrics in a buyers' market, and modern methods of mass production in the clothing industry have imposed upon the textile industry nearly impossible standards of perfection. The cloth that is manufactured must be practically flawless.

The burden of maintaining a high standard of quality rests primarily on the mill. But the machinery manufacturer can be of invaluable service to the user of his equipment if he studies the inferior goods and determines what caused them. In the program of this discussion, men were sent into the mills to ascertain what percentage of the yardage produced was of second quality. Next they learned what constituted a second. The defects were listed and were classified to show whether they were the fault of the material, the worker, or the loom. Those that were attributable to the loom were then analyzed.

A typical example of this work relates to the defects

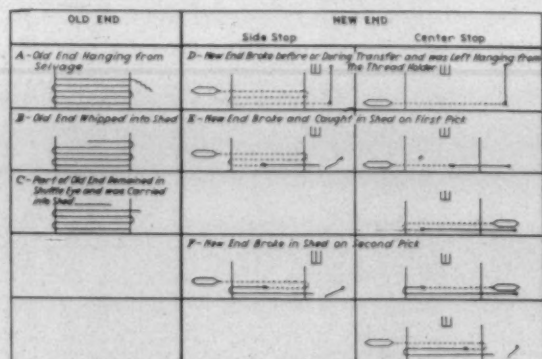


FIG. 4. ANALYSIS OF FILLING BREAKAGE AT THE TRANSFER OF THE BOBBIN IN AN AUTOMATIC LOOM

which are the result of ends of filling being drawn into the cloth in automatic looms. Analysis showed that any one of the six cases shown in Fig. 5 might occur. Of these No. 4 was found to be the most troublesome, principally because of the fact that it is something over which the mill has little or no control. To remedy this difficulty a great deal of experimental work was done under the direction of an ingenious inventor, with the result that the problem apparently has been solved.

Not unlike the problem of quality, the third major item, namely, the question of quick deliveries, is one for which there is a dual responsibility. Here again the mill bears the major burden, but looks to the machine builder for assistance in lightening it. The latter can do his share by providing machinery that is capable of

1. A high rate of production, and
2. A wide variety of uses.

The manner in which a high rate of production can be

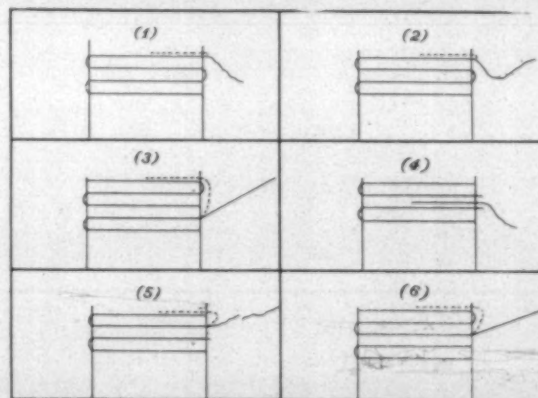


FIG. 5. ANALYSIS OF DRAWN-IN FILLING ENDS ON AN AUTOMATIC LOOM

- (1) Old end not held by magazine thread cutter.
- (2) Old end breaks between selvage and magazine thread cutter before temple cutter works.
- (3) Old end goes over or under temple cutter.
- (4) Old end remains in shuttle eye at transfer.
- (5) New end breaks between selvage and thread holder before temple cutter works.
- (6) New end goes over or under temple cutter.

obtained has already been discussed in connection with the yardage to be had from a loom over a given period of time. The characteristic of flexibility in use, however, involves somewhat different considerations. Once more market conditions play a part. In the first place, the textile industry is at the mercy of style. Next, it is affected by seasonal changes. Lastly, it is faced with the necessity of adapting itself to the manufacture of fabrics in which there is a greater profit than in those hitherto produced.

Under these circumstances, the desirability of a flexible loom is evident. The mill which is equipped with machinery that will produce a variety of fabrics has an immense advantage over the mill which can make but one or two. To be able to shift from a plain fabric to a fancy fabric, from a light fabric to a heavy fabric, or from a fabric of one material to one of an entirely different material, is a distinct asset. Furthermore, if the machinery can be changed quickly, by the addition of attachments, to weave a different line of goods, it enables the mill to go at once from an unprofitable line to a profitable one.

The task of making flexible looms was approached as a problem of standardization. The common looms were studied to the end that a family of them was developed

(Continued on Page 25)

EVERYBODY'S BUSINESS

By FLOYD PARSONS

Whirling Wheels

WE have paid dearly for our departure from the proved principles of sound business practices. Economic disaster has brought a return of sanity and opened eyes to the folly of pyramiding prices and imagination. But it is human nature to forget quickly. Faces are already turning to gaze hopefully at the foothills of a new era—in fact, a new civilization.

What we approach is a time of mechanical advances beyond present comprehension. All we have so far accomplished is but the commencement—merely the twilight before the dawn. Always the cry has gone up that the world is dying of machinery. Even years ago when atomic physics was born, the resulting rapid disclosure of new technical knowledge caused many to feel that humanity was facing something blinding and terrible.

If it were not for our progress in the construction of wonderful machines, the Holy Land would still be a goal for the crusaders instead of a high spot in a Cook's tour; the horse would continue to be supreme in the field of power, and mass production would be nothing more than a dream. We would be shaping pins and nails by hand, getting our light from sperm oil, working in ten-hour shifts, picking our way through ill-smelling streets, copying bills and business correspondence on a letter press, and using as a measuring rod the distance a stagecoach can cover from sunrise to sundown.

Although today we live in a riot of numbers, noises, mechanized melodies and whirling wheels, there is still plenty of freedom for individual expression. Where in the past can one point to accomplishments that compare in importance with the radio equipment which brings succor to the ship in distress, the airplane that literally has reduced great continents to the size of small states, the motion-picture camera that has transformed the entire world into a single great stage opened before us, and dozens of other marvels such as the electron tube, the mechanical excavator, the tractor, the vending machine, and the automatic molding press, which is able to convert cheap plastic materials like cellulose into hundreds of highly useful articles.

We should not blame science and engineering for our own misuse of the benefits they have brought us. Automations of iron and steel have been chiefly responsible for ridding humanity of uncongenial tasks and dreary drudgery. They are sending transportation into the sky, making it possible to manufacture a desirable form of indoor artificial weather, causing headwork to count for more than handwork, and giving us leisure time to use in the pursuit of health and a higher culture.

We are safe in our partnership with chemical robots so long as we remember that they cannot do creative thinking or make decisions, and so long as we continue to regard them as servants whose welfare comes second to that of humankind.

POST MORTEM

Post mortems and weeding-out processes, properly organized and conducted, never fail to bring about material savings in any company.

Leaks can be found by everyone who will exercise energy and concentration in looking for them. Waste elimination means something more than short pencils and

economy in paper and ink. It is concerned with duplication of effort; with time lost in interviewing unimportant visitors; with energy expended on tasks that might have been delegated to others; and with systematic planning to eliminate peaks and valleys in the volume of office work.

Nothing can be more wasteful than a merciless policy of destructive price competition resulting from a complete lack of co-operation between the leading executives of a great industry. Under such a condition the officers and wage earners of large companies may enjoy a fair degree of prosperity, but how about the stockholders who are financing operations?

Group action has become as essential to the success of business as signal lights are to the smooth flow of urban street traffic. We must have an end to the cut-throat methods that eventually bring distress even to those consumers who enjoy a momentary benefit. Our leaders must abandon the policy of "going it alone," and seriously consider the vital importance of unifying the aims of competing managements.

It is well understood in our country that there can be no direct fixing of prices nor any division of markets that even indirectly serves to restrict production. But in the words of one eminent member of the United States Supreme Court, "The Sherman Law neither repeals economic laws nor prohibits the gathering or dissemination of useful information."

Our best managed corporations are not price cutters. They employ accounting methods which accurately show true costs. They save an enormous amount of money by setting aside one week each year for an intensive campaign to eliminate wastes. Their studies initiated by this plan have cut the chains of precedent; added labor-saving equipment; diminished the number of needless and ineffective motions; standardized machine details and office forms; reduced the spoilage of materials; improved combustion practices; removed excess inventories; stopped the extravagant use of light; and directed more attention to the reclamation of obsolete equipment.

Losses of materials are serious, but any considerable waste of minutes comes closest of all being a disaster.

INGENUITY OPENS OPPORTUNITIES

Recently I started digging into the subject of uncommon vocations. Clearly we have passed the day when the general run of occupations might be classified under one of the four heads of the old schoolyard chant, "Doctor, lawyer, merchant, chief." On every side of us are openings for those who are able to reduce waste, improve current practices, devise new methods, entertain the public or render some form of useful service for which there is either an actual or a potential demand.

A man in Missouri has shown the way to those who would like to try earning a living by raising flocks of frogs. He started with a backyard farm, and it already appears that one might raise as many as 5,000 frogs to the acre. With frog prices averaging better than a dollar a dozen and frogs' legs continuing to be a table delicacy, ventures of this kind are certainly not unattractive.

(Continued on Page 24)

Practical Textile Designing

BY THOMAS NELSON

Dean of The Textile School N. C. State College

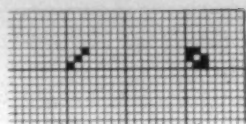


Fig 9

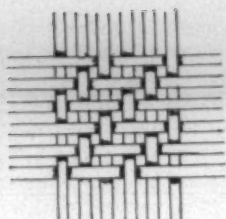


Fig 10

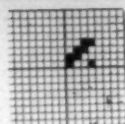


Fig 11

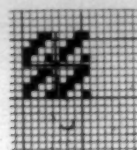


Fig 12

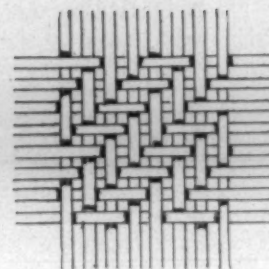


Fig 13

Fig 14

This is the second of a series of articles on designing by Dean Nelson, a recognized authority on the subject. The articles are extremely practical and will be found particularly helpful by the younger men who are just beginning to study designing. The third article will appear next week.—Editor.

TWILL WEAVES

Twill weaves are formed by interweaving the warp and filling threads with each other in such a manner that diagonal lines are formed in the fabric. These lines can be made to run from right to left or from left to right. Twill weaves can be made on any number of threads, from three upwards, the simplest of which is the three harness twill, one up and two down; also the one down and two up.

Fig. 9 illustrates the one up and two down twill; Fig. 10 the one down and two up twill. Fig. 11 is a diagram of Fig. 9, two repeats of weave.

TO CONSTRUCT TWILL WEAVES

Mark off on design paper the number of squares required for the weave. Begin with the square at lower left hand corner and fill in the same for the first pick. For second pick advance one square to the right and fill in the same. For third pick advance one square to the right and fill in the same. This will give a right hand twill. For a left hand twill begin with square at lower right hand corner and advance one square to left hand.

This is the principle on which all twills are constructed, whether on a small or a large number of threads. In making these designs it should always be remembered that the lines must be continuous and unbroken. This point can be better illustrated by using the two up and two down twill, illustrated at Fig. 12.

Mark 4 x 4 empty squares on design paper, then fill in the weave. It is on the last thread and pick that care must be taken so that the line will be continuous and unbroken. When more than one repeat is made, the twill line must join correctly at every point.

Fig. 13 illustrates two repeats of this weave, both ways,

divided by heavy lines so that the correct joining can be seen at once.

Fig. 14 is a diagram of this weave.

INDICATING TWILLS

A short method of indicating the twill required to be made is by ruling a line and then, instead of using the words up and down, mark with figures above and below the line the number of threads required to be raised or lowered. For example three harness twill, one up and two down, thus:

1
—
2

The number above the line represents threads raised, number below the line represents threads lowered. Four harness, two up and two down twill, thus:

2
—
2

one up and three down twill, thus:

1
—
3

Any twill can be represented in this manner.

Fig. 15 illustrates the 4 twill.

4

(Continued on Page 22)

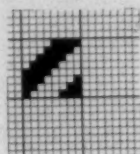


Fig 15

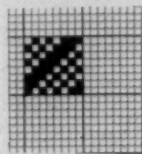


Fig 16

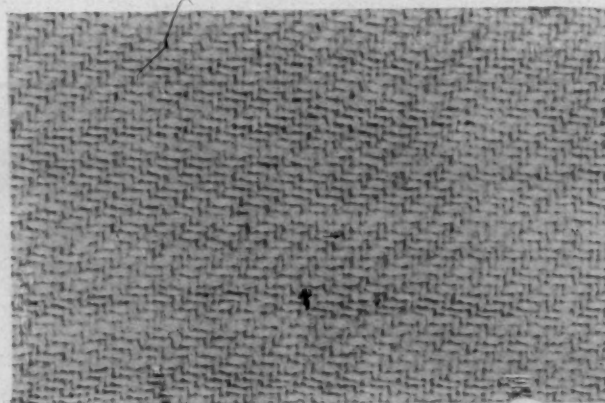


Figure 17

Nicholson Heads South Carolina Association

AT the annual meeting of the South Carolina Cotton Manufacturers' Association, held at Asheville, N. C., last Friday and Saturday, W. S. Nicholson, of Union, was elected president. He is president of the Union-Buffalo Mills and succeeds T. M. Marchant, retiring president of the Association.

Other officers elected were: S. M. Beattie, first vice-president; Marshall P. Orr, second vice-president. William P. Jacobs, of Clinton, was elected secretary. Until this meeting the Association had not employed a full-time secretary.

One of the features of the meeting was the address by T. M. Marchant, retiring president, who emphasized the necessity of lower taxes on industry.

"Statistics clearly show where the trouble lies—in lack of public interest and too little regard for debt in the passage of bond issues and progress in education, and perhaps, in highway development, far beyond the ability of the people to pay," he said.

Mr. Marchant also discussed the present market situation and he deplored that "the time is apparently past when there is any such thing as salesmanship."

"The propositions that are put up to you today are merely the buyer's bid at such and such a price, just as if you were selling horses or mules, the cost of your goods having no bearing whatever on the sale."

DEFECTS OF WAGE-CUTTING

"When selling agents who represent your mills are brought to realize that goods are made to be sold for a profit instead of a loss, when order-takers are dismissed and salesmanship restored, then and not until then will prosperity be restored."

The speaker also denounced indiscriminate wage-cutting for its effect upon the consumer's pocketbook. "While we all realize that some adjustment in wages had to be made, it seems that too much pressure was brought to bear in that direction, and for every dollar taken of your payroll, just that much—and considerably more, no doubt, in many cases—was deducted from the price of our goods, at the same time crippling the buying power of our employees and benefiting no one."

Mr. Marchant said that the recent break in the print cloth market was evidence that "a little prosperity resulting from two years' curtailment of production, was evidently a little more than we could stand, and that "while many of us felt that the opportunity of putting the industry on a profitable basis had been lost by it, yet there remains the responsibility resting on us in the management of properties, a responsibility due to stockholders who have invested their funds to our care."

INCREASE IN MILL TAXES

The speaker held that the elimination of night work for women was a good move and pointed out that as South Carolina produces approximately 80 per cent of the print cloths, it was gratifying that 80.8 per cent of the print cloth looms, including 78.6 per cent formerly classified as night-runners, had conformed to the Cotton-Textile Institute's recommendation.

Mr. Marchant, discussing taxation, said: "Assessments on total taxable property in South Carolina have decreased from \$452,490,600 in 1921 to \$415,000,000 in 1930, a decrease of 8 per cent. Assessments on cotton mill properties in South Carolina have increased from

\$54,722,435 in 1921 to \$70,915,815 in 1930, an increase of 29 per cent. Thus while the burden has been steadily taken off the property of other taxpayers, it has been steadily laid on the cotton mills during the period of ten years just passed.

"The assessments are greater than all other industries combined, and are almost twice as great as assessments of railroad properties."

"Tax rate a spindle:

"South Carolina mills has increased from .555 in 1922 to .78 in 1930, increase of 40 per cent.

"Alabama mills has increased from .315 in 1922 to .377 in 1930, increase of 19 6-10 per cent.

"Georgia mills has increased from .576 in 1922 to .651 in 1930, increase of 13 per cent.

"Texas mills has increased from 2 7-10 per cent.

"North Carolina mills has decreased from .799 in 1922 to .717 in 1930, decrease of 10 per cent.

Last week we were confident that there was better in .485 in 1930, decrease of 25 2-10 per cent.

"Tennessee mills has decreased from .814 in 1922 to .488 in 1930, decrease of 40 per cent."

GIVES NEW ENGLAND RATES

"The tax rate per spindle of New Bedford mills has decreased to .5225 and of Fall River mills to .4396 within recent years."

"South Carolina now pays a higher tax rate per spindle than any other principal textile State. The increase in taxes paid per spindle in South Carolina by the cotton mills has been greater than in any other principal textile State. While cotton mill taxes in South Carolina have steadily increased, there has been a decided decrease in many textile States."

"Taxes paid by South Carolina mills show the following tendencies:

| | | |
|--|----------------|----------------|
| Property taxes (State, county, school) | \$3,301,760.51 | \$3,616,706.00 |
| Corp. license fees | 299,726.80 | 311,157.97 |
| Income taxes | 745,764.96 | 337,680.95 |
| Total | \$4,347,252.27 | \$1,265,544.92 |

PAY 39 KINDS OF TAXES

"Thus while total taxes appear to have decreased—the decline is entirely the result of a decrease in income taxes paid and denotes mill losses. During the period property taxes and corporation license fees actually showed an increase. South Carolina mills are now paying thirty-nine different kinds of taxes."

"How do we account for tax increases?"

"The problem is in the counties, school districts and municipalities, where taxes have run wild."

"Excluding municipal, State, income and capital stock taxes, the property taxes paid by South Carolina mills go:

| | Per Cent |
|-----------------|----------|
| County | 48.4 |
| School district | 39.6 |
| State | 12 |

SHOWS SHIFT OF BURDEN

"A portion of the county and State taxes go for school purposes. Between 1914 and 1929 a division of tax increases finds the following:

| | Per Cent |
|--------------------------------|----------|
| Assessed value increased | 38 1-10 |
| State taxes increased | 15 6-10 |
| County taxes increased | 326 8-10 |
| School district | 404 2-10 |

"Every type of taxation has shown a steady increase, with perhaps the exception of income taxes and the 5-mill State levy. The bonded debt of the State has rapidly increased and is very largely responsible for much of our tax burden.

"Statistics show that the bulk of the taxes paid by the cotton mills of South Carolina are used for county and school purposes; and it is singular to note that the county taxes and school district taxes have shown enormous increases in the past fifteen years, while the general assessed values and State taxes have shown only slight increases."

Clemson Textile Teachers Take Post-Graduate Work

The staff of the Clemson Textile Department for the past three years has taken more additional work than has the staff of any other American textile school. For the past three years over 90 per cent of the teachers of the Clemson Textile Department, Clemson College, S. C., has taken work toward degrees in the various colleges and universities either during the summers or by leave of absence during the school year.

During this summer the members of the textile faculty will be engaged as follows:

A. E. McKenna, professor of weaving and designing,

and E. F. Cartee, of the weaving and designing division, have returned to the University of Tennessee to continue work toward M.S. degrees in education.

H. S. Tate, in charge of textile industrial education, who completed the work on his M.A. degree at Columbia University last summer, has gone to George Peabody College to work toward a Doctor's degree in education. J. L. Brock, instructor in industrial education, is continuing work toward a M.S. degree in education at Peabody College.

G. H. Dunlap, of the carding and spinning division, is taking post-graduate work in textile chemistry at Clemson College during the summer. R. L. Lee of the carding and spinning division, who teaches the cotton grading course to Clemson textile students, has entered the cotton school at Texas A. & M. College where he will take work not only in cotton grading but also in cotton trade procedure. At the close of the session Mr. Lee will take the examination for a government license in cotton classing.

Dr. C. E. Mullin, in charge of the chemistry and dyeing division of the Clemson Textile Department, will be engaged in some special work in his particular field for some Eastern manufacturing companies. A. R. Macormac, of the chemistry and dyeing division, will return to Columbia University to continue his work toward a M.S. degree in chemistry.

H. H. Willis, director of Clemson College textile department, R. K. Eaton, in charge of carding and spinning, and W. E. Shinn, in charge of weaving and designing, will during the summer do special work in further organizing and correlating the various courses offered by the textile department.

Pound Out Profits

at present price-levels



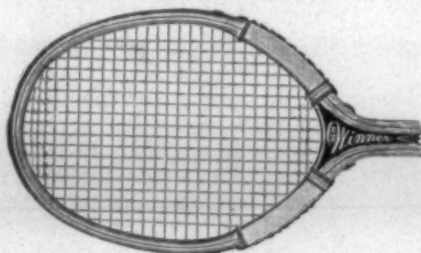
You're hammering down costs where you KNOW they're high. They may still be high at many of your looms without your knowing it. . . . Veeder-Root Pick Counters tell you the cost per loom, per weaver, per day or night. Show you the profitable units — and the losers. Direct your strokes of profit-management where they COUNT right now in pounding down costs. Write us, now, for a free trial installation. » »

Veeder-ROOT INCORPORATED
HARTFORD, CONN.

BUILDERS OF PICK COUNTERS

FOR TWENTY-TWO YEARS

Tennis Rackets Restrung



Tie tag to racket, indicate grade of gut desired and mail racket parcel post. It will go back to you in three days.

Wholesale prices to textile plants as follows:

| | |
|-----------------------------|--------|
| No. DC—Davis Cup | \$8.50 |
| No. 1—Fine Lamb | 5.00 |
| No. 2—High Grade Lamb | 3.75 |
| No. 4—Silk Strings | 2.00 |

**Carolina
Sporting Goods
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PERSONAL NEWS

Fred Caldwell has become section hand in carding No. 2 at the A. M. Smyre Manufacturing Company, Gastonia, N. C.

W. A. Case is now second hand in carding at the Hermitage Cotton Mills, Camden, S. C.

Thomas McConnell, of Easthampton, Mass., has been elected president of Hampton Textiles, Inc., the mercerizing company which is affiliated with Textiles, Inc., Gastonia, N. C.

R. B. King, of Easthampton, Mass., has been elected first vice-president of Hampton Textiles, Inc., mercerizing company of Gastonia, N. C.

J. H. Separk and J. L. Gray has been elected vice-presidents of Hampton Textiles, Inc., Gastonia, N. C., which is to operate a mercerizing company.

A. K. Winget has been elected secretary and treasurer of Hampton Textiles, Inc., Gastonia, N. C., which is operate the mercerizing plant in connection with Textiles, Inc., the yarn merger at Gastonia, N. C.

R. A. Bartlett has been appointed plant manager of the new mercerizing plant to be operated at Gastonia, N. C., by Hampton Textiles, Inc.

Gerald A. Cooper has been elected treasurer and manager of the Piedmont Processing Company, which takes over the Thies Dyeing & Processing Company, Belmont, N. C.

B. E. Geer, of Greenville, is president; A. C. Lineberger, Jr., vice-president and W. H. Crenshaw, assistant treasurer of the Piedmont Porcessing Company, Belmont, N. C., formerly the Thies Dyeing & Processing Company.

A. K. Buxton, Southern representative of the Baltimore Belting Company, is reported as seriously ill. He is a patient at the Mercy Hospital, Charlotte.

Arthur Emery, of Charlotte, who for some time has had general supervision of the Griffin Mills, Inc., Griffin, Ga., has been appointed general manager of the Brookside Mills, Knoxville, Tenn. He was formerly general manager of the Aragon-Baldwin group of mills.

Joe Sherrill has been transferred from Spencer Mountain Mill to Ranlo Manufacturing Company, Gastonia, N. C., as overseer of weaving.

R. C. Veach, overseer carding and spinning, Ranlo Manufacturing Company, Gastonia, N. C., has accepted a position with C. A. Rudisill of Cherryville, N. C., as efficiency man.

W. H. Noblett has been made overseer carding and spinning in connection with other duties, Ranlo Manufacturing Company, Gastonia, N. C.

A. M. Guillet of the Dixie Spindle & Flyer Company, Charlotte, N. C., has been granted a patent which covers an interchangeable roller neck for drawing rolls used in fiber preparation in textile machinery which comprises boring out the ends of the roll sections and inserting therein a roller neck threaded at each end to engage internal threads in the roller neck, these threads being far enough in the roll to cause the rolls and roller neck to be in perfect alignment. Paul B. Eaton, attorney, handled the patent.

MERROWING

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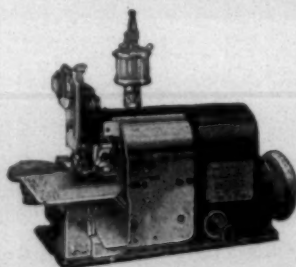
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OBITUARY

W. L. JENKINS

W. L. Jenkins, one of the oldest card clothing men in the South, who has for many years been in the employ of Joseph Sykes Bros., (American) Inc., passed away recently at Johns Hopkins Hospital.

Mr. Jenkins was 59 years old and was born in York, Pa., but has made his home in the South for the past thirty-four years. Mrs. Jenkins died about two years ago and he is survived by the following relatives: Mrs. Ida Staubs, Mrs. Minnie Keith and Mrs. Rose List, sisters, of York, Pa. Brothers, Charles Jenkins of Clearmont Harbor, Miss., and James Jenkins of Baltimore, Md.

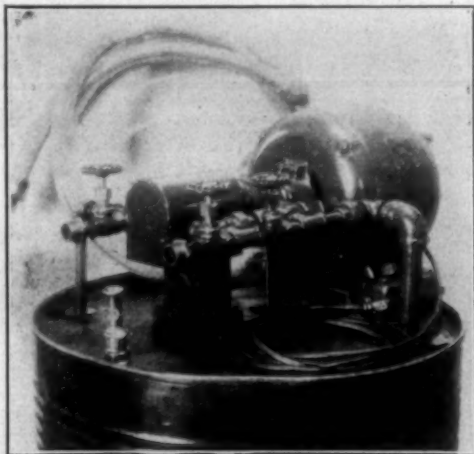
Interment was at Columbus, Ga.

Oil Spraying Machine

It is a well known fact that the blending of oils is an art requiring skill—really a machine's job.

Herbert Hinckley, Inc., of Charlotte, N. C., manufacture a machine which is called "Whale" model 5A, and which will mix anything from the very lightest to the very heaviest oil and do it well.

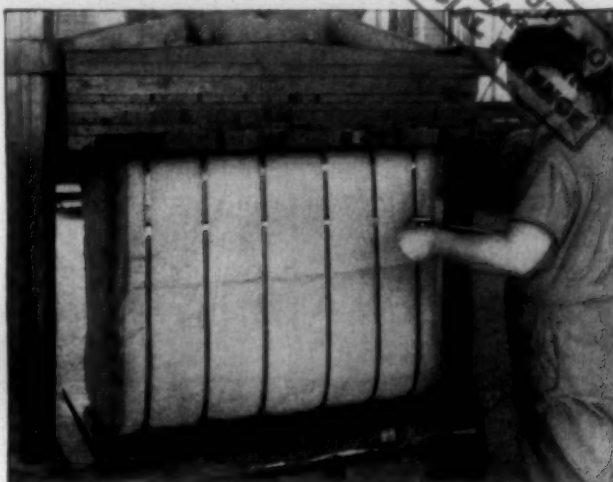
Model 5A is a motor driven mixer made to fit on the top of a standard 55 gallon drum. It has a blending capacity of 5 gallons per minute or 300 gallons per hour.



This machine is complete with electric motor, sprayhead, hose and suction pipe.

It is an excellent emulsifier and is provided with water and discharge connections so that blending, emulsifying, and spraying can be done without moving the machine. In fact, all there is to be done to start it is to manipulate a few valves, and the emulsion is made—then turn a valve, and spray. It prevents the slopping of oils and emulsions on the floor, and handles all liquids without the use of dippers, pails, or other implements. It can be used to an advantage in the stock room to make oils, in the mill to mix various ingredients, and in the dye house for all sorts of liquids.

It has been proven that Model 5A is distinctly advantageous for making emulsions, as the passage through the machine eliminates any possibility of particles, lumps, or other substances getting into the strainers or sprayheads and clogging them. The Model 5A saves more than its first cost in a year, the makers state.



Stanley Eversafe - - the name of a better Bale Tie System

Even the most critical executive cannot help admitting the logic of changing to Stanley Eversafe in view of advantages like these:

1. Stanley DS Seals make much stronger joints than any other type of seals.
2. Round Safety Edges and Ends on Stanley Eversafe prevent cuts and scratches and speed up baling operations.
3. Stanley Eversafe Ties "Coiled Double" save just half the time in uncoiling and measuring.
4. The Satin Finish on Stanley Eversafe gives you smooth, clean ties to work with.
5. Made of Stanley Steel, Stanley Eversafe Ties are of uniform gauge and tensile strength to insure the greatest efficiency.

Let us prove to you these statements

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The Stanley Works Sales Co.
552 Murphy Ave., S. W., Atlanta, Ga.

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P. O. Box 424 Charlotte, N. C.

Many minor cuts, digs and scratches, generally unreported, slow up tying operations. Round Safety Edges and Ends on Stanley Eversafe Ties prevent such injuries and speed up operations.

Your Firm's Name, Trade Name, Trade Mark, Slogan, Warnings and Special Designs can be had printed continuously on Stanley Colograph Ties.

Stanley EVERSAFE Bale Ties and Seals



IT'S GOOD BUSINESS

to stop where
Business is Good!

2,500 rooms. A radio, tub, shower, circulating ice water, Servidor in every one of them. Extra value!

Every room an *outside* room—and 85% of them priced at \$3.50 to \$5.00. Extra value!

116 new sample rooms. 4 popular price restaurants, including a "speed counter" Coffee Shop—with food that is the talk of the town. Extra value!

A location in the heart of midtown Manhattan "next door to everything". Private tunnel to the Pennsylvania Station. B. & O. Motor Coach connections, too. Extra value!

The overwhelming success of the Hotel New Yorker is not built upon low rates alone; it is built upon **BIGGER AND BETTER VALUE.** Come and get it.



HOTEL NEW YORKER

NEW YORK'S MOST POPULAR HOTEL
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RALPH HITZ, MANAGING DIRECTOR
Chicago Office: 77 West Washington Street

Hunter's Sales Break Records

"This has been an outstanding week in Worth Street. Last week we were confident that there was better inquiry ahead for print cloths and that a very considerable quantity of goods had to be bought before the middle of July, but we little realized that this buying was to come into the market from all direction at one and the same time. A few keen buyers had placed print cloth orders on Friday and Saturday of last week, but President Hoover's announcement of his plans to alleviate the financial crisis in Germany caught the markets by surprise. It was the magic wand waved to restore confidence, and the restoration of confidence was all that was necessary for, with the markets sold out and prices so depressed, the stage was set.

"The rush of business on Monday, Tuesday, Wednesday and Thursday was almost unparalleled, and our sales this week have been the largest in our history. Print cloths featured the market from the beginning of the week to the end, with broadcloths a close second, and we are glad to report that there has been a considerably better inquiry for sheetings, too. However, the difference in movement between goods ultimately to be sold over the retail counter and those used for industrial purposes is still great, demands for goods for industrial uses still being below par.

"Buying was so heavy that it carried print cloth prices from a level of 4½¢ on 38½-inch 64x60s early Monday morning to 5½¢ that evening, 4¾¢ on Tuesday, 4¾¢ on Wednesday and 5¢ on Friday; other print cloth constructions in proportion. The print cloth mills are now pretty well sold up for July and August. Prices are still unsatisfactory. Quotations on sheetings still show material losses and, consequently, advances must be looked for at the earliest opportunity. Colored goods have moved along with grey goods. A price of 10½¢ on 2.20 yard denims made the first of the week brought in a considerable volume of business.

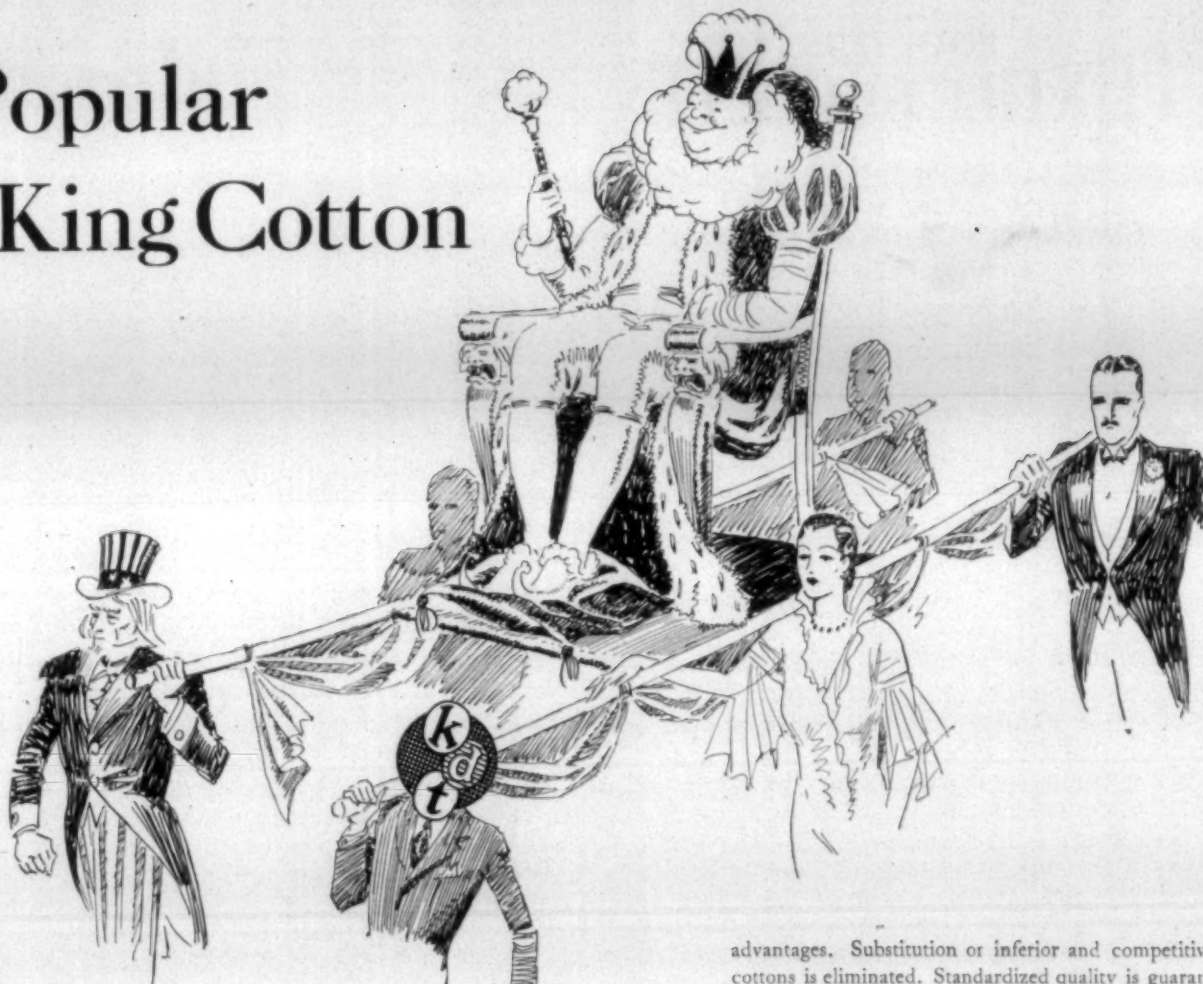
"We are inclined to think that no other line of industry has shown the immediate response to the President's statesmanship foreign policy that ours has. There is no further room for argument about our having turned the corner; this should be clear to every one."

Spindle Hours for May

Washington, D. C.—The Department of Commerce announces that according to preliminary census figures 32,993,820 cotton spinning spindles were in place in the United States on May 31, 1931, of which 26,397,906 were operated at sometime during the month, compared with 26,645,404 for April, 26,489,832 for March, 25,763,408 for February, 25,611,458 for January 25,525,820 for December, and 28,357,908 for May, 1930.

The aggregate number of active spindle hours reported for the month was 6,738,740,226. During May the normal time of operation was 25 and one-half days (allowance being made for the observance of Memorial day in some localities) compared with 25 2-3 for April, 26 for March, 25 2-3 for February, 26 1-2 for January, and 26 for December. Based on an activity of 8.91 hours per day the average number of spindles operated during May was 29,659,295 or at 89.9 per cent capacity on a single shift basis. This percentage compares with 94.3 for April 91.2 for March, 87.2 for February, 80.8 for January, 76.1 for December, and 83.4 for May, 1930. The average number of active spindle hours per spindle in place for the month was 204.

Popular King Cotton



*—now all the Nation
rallies to his support..*

1931—and all America pays homage to King Cotton. He has been glorified in thousands of new fabric-designs. His vogue has been caught up by women everywhere. His adaptability and style have been expressed in a myriad of garments, household necessities, etc.

Never before has the consumer of cotton had such a wide and varied assortment of cottons to choose from. And the reason for it is the successful efforts by such groups as the Government, the Cotton-Textile Institute, department stores, style authorities and cotton manufacturers to lift cottons into the limelight of styled fabrics.

To nourish this popular demand for cottons, manufacturers have injected new style into their fabrics. But *equally important*, they have adopted new marketing, merchandising and advertising methods to "put their cottons across." And an indispensable part of this program has been effective trademarking and identification.

A trademarked cotton starts out with tremendous

advantages. Substitution or inferior and competitive cottons is eliminated. Standardized quality is guaranteed the buyer. Steady, repeated demand is assured. Advertising is given increased effectiveness and the essential tie-up between product and user.

Dealers find that trademarked and identified fabrics sell easier and quicker... that made-up cottons get immediate, quality recognition from the purchaser.



A 29-year old alliance with the textile industry has enabled the Kaumagraph Company to help many cotton manufacturers establish brand-names and trademarks for their cottons. The application of these marks to the fabric has been accomplished with Kaumagraph Dry Transfers, the most practical, beautiful and economical method in existence.

Special machinery, developed by Kaumagraph, has so simplified the trademarking operation that it can usually be combined with some other operation such as measuring, rolling, winding, etc.

Thinking of getting a trademark... or applying your existing mark? Get in touch with the Kaumagraph office nearest you. No obligation, naturally.

KAUMAGRAPH COMPANY
200 Varick Street New York
Chicago Philadelphia Los Angeles
Chattanooga, Tenn. . . Charlotte, N. C. . . Paris, Ont.
Paris, France . . . Manchester, England

SOUTHERN TEXTILE BULLETIN

Member of
Audit Bureau of Circulations and Associated Business Papers, Inc.
Published Every Thursday By

CLARK PUBLISHING COMPANY

Offices: 118 West Fourth Street, Charlotte, N. C.

| | |
|-----------------|------------------|
| DAVID CLARK | Managing Editor |
| D. H. HILL, JR. | Associate Editor |
| JUNIUS M. SMITH | Business Manager |

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Contributions or subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Lots of Goods Given Away

It is estimated that 100,000,000 yards of cotton goods of print cloth yarn construction were sold last week and very large sales of goods of other constructions were sold.

One commission house said in its weekly letter:

This week has been an outstanding week in Worth street. The rush of business on Monday, Tuesday, Wednesday and Thursday was almost unparalleled, and our sales this week have been the largest in our history.

All of that was fine except for the fact that a considerable portion of the sales were made at prices which will show the mills no profit.

Selling agents are too quick to accept offers and too slow to advance their prices.

Even the sale of 100,000,000 yards of goods using print cloth yarns was not sufficient to advance the price of print cloths to a profitable basis.

With a very small amount of co-operative effort the commission houses could have obtained much higher and more profitable prices for the 100,000,000,000 yards.

With the exception of being able to operate their mills upon full time during July and August, the mills have profited very little from the recent spurt in business.

The Blue Ridge Conference

A number of prominent cotton manufacturers have written us relative to our recent editorial dealing with the Industrial Conference at Blue Ridge.

They seem to think that the conference is all right, but one of them states that he disapproved of certain utterance at the last Conference.

The editor of this journal attended the Blue

Ridge Conference for years, until in the midst of the organized effort to rob the States of their reserved powers through the medium of a Federal child labor law, Charles R. Towson, attempted to get the Conference to support the movement.

The editor of this journal and a number of mill men advised Mr. Towson against any such effort and pointed out to him that it was against the sentiment of the people in this section of the country.

Aided by his speakers, from other sections, Mr. Towson insisted upon carrying out his plans and the editor of this journal and a number of mill men who were present left Blue Ridge that night and have none of them have ever been back.

We are firmly convinced that Mr. Towson was co-operating knowingly with those who sought the enactment of the Federal Child Labor Law.

We would strongly favor a "Southern Conference on Human Relations in Industry," provided it was in effect a Southern Conference of Southern industrial leaders.

Our objection is to the bringing in of Chas. R. Towson and men from other sections of the country for the purpose of having them tell us how we should conduct ourselves.

A number of the best minds of the textile industry of the South, have been participating in the Conference and think very well of it, but until it becomes a Southern Conference we expect to be among those absent.

Cock-Eyed Justice

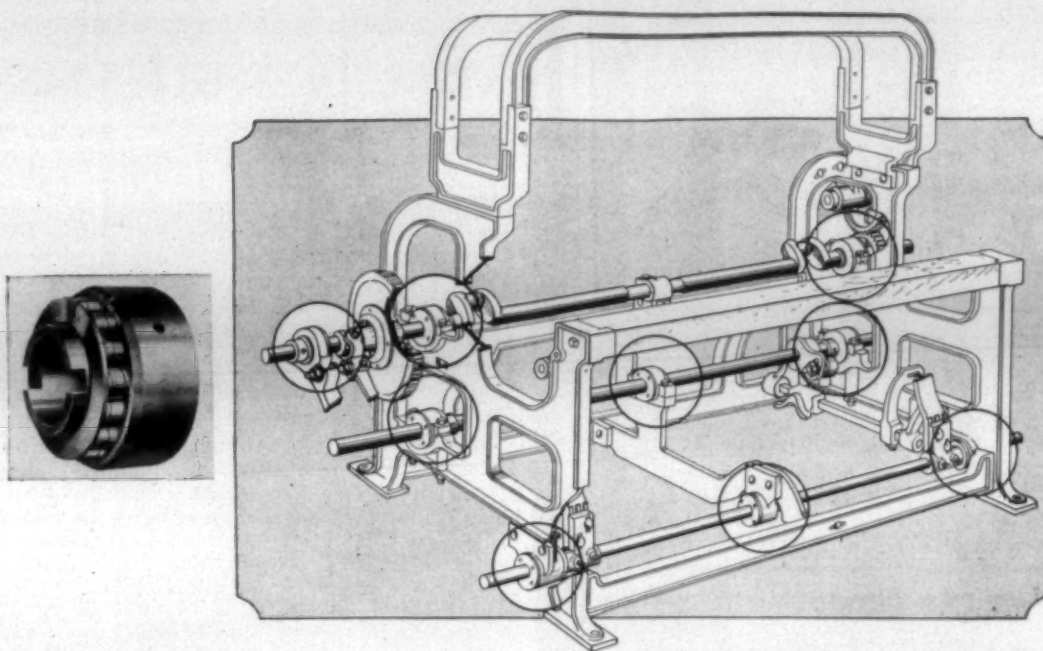
Under the above title the Raleigh News and Observer refers to the recent conviction of two men who dynamited a preacher's house during the Marion strike last year.

The News and Observer recently protested against the elimination of the graduate school at N. C. State College because it also eliminated Dr. Carl C. Taylor, a virulent radical, and now they condemn as cock-eyed justice the conviction of two men who placed dynamite under a house in which a preacher and his little children were sleeping.

It would seem that the News and Observer thinks that every radical professor should hold his job for life and proof that a man was a member of a labor union should prevent his conviction for any crime.

A minister who lived near the Clinchfield Mill, Marion, N. C., criticised the strikers for certain disorders and two men slipped up to his house under cover of darkness and, with the full reali-

(Continued on Page 23)



You'll be surprised to find the small additional cost for these high-grade bearings

It is only natural that accurate, suitably selected and adaptable bearings should be included in machines which have as their keynote accuracy and speed. It is only natural that loom builders should select Hyatt Roller Bearings to maintain the accurate operation of loom parts because these bearings are peculiarly adaptable and suitable for loom construction.

Of what avail is it to carefully manufacture gears, shafts, cams, rotating, reciprocating, oscillating and parallel motions to close limits of accuracy

unless some means is taken in hooking these parts together to insure that their accuracy of operation and that their relation to each other, is maintained throughout the life of the machine.

Since a Hyatt Equipped loom does not stop as often for the fixing of worn or broken parts due to faulty bearings . . . since lubrication is required only three or four times yearly . . . it is clear that greater production is made possible when Hyatt Roller Bearings are employed. Hyatt Roller Bearing Company, Newark, Detroit, Chicago, Pittsburgh, Oakland.

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Country Estates
Town Properties**Largest Landscape Organization in the South****MILL NEWS ITEMS**

KNOXVILLE, TENN.—The Brookside Mills, it is understood here, have purchased combing equipment and will soon begin production of combed fabrics. Arthur Emery, well known mill executive, of Charlotte, has been appointed general manager of the company.

BEAUMONT, TEX.—Options were obtained last week on two tracks of land, totaling 492 acres, by two large cotton mill concerns of the Atlantic seaboard. Names of the concerns were not made public, but it is probable that one or both of them will erect textile mills on the sites upon which options have been obtained. The sites are located in the Port-Neches-Nederland area, between this city and Port Arthur.

GASTONIA, N. C.—The sale of the product of Textiles, Inc., of unfinished combed yarns and that of Hampton Textile, Inc., in mercerized and finished yarns throughout the United States will, excluding the Southern territory, be handled by H. A. Florsheim and Albert W. Latta, as sales managers, according to announcement from the offices of Textiles, Inc. They will also handle the Canadian and general export trade of these companies.

Their offices will be located as heretofore, Mr. Florsheim's in New York at 225 Fifth Avenue and Mr. Latta's in Philadelphia at 308 Chestnut street.

Announcement will be made soon of plans and personnel of sales force in Southern territory.

GREENVILLE, S. C.—Directors of the Southern Weaving Company, of this city, authorized the regular dividends on both common and preferred stock, and a special dividend of 1½ per cent on common stock of the company. The regular semi-annual dividends of 3 1-3 per cent on both common and preferred stock will be payable June 30, along with the extra dividend of 1½ per cent. The dividends total 12,100.

The company enjoyed a good business during the first half of the year, it was reported at the meeting. Officers of the concern are F. D. Murdock, president, and J. W. Burnett, secretary-treasurer.

BELMONT, N. C.—The Thies Dyeing & Processing Company has been re-organized under the name of the Piedmont Processing Company. The new organization is effective July 1st. The office and plant will remain in Belmont.

The new company has secured Gerald A. Cooper, formerly treasurer of Cooper-Kenworth Company, Providence, R. I., as treasurer. The officers of the new organization, in addition to Mr. Cooper, are B. E. Geer, Greenville, S. C., president; A. C. Lineberger, Jr., vice-president; W. H. Crenshaw, assistant treasurer.

Recently the Thies Dyeing & Processing Company completed the installation of considerable new package and beam dyeing equipment. This equipment will make Piedmont Processing Company one of the most modern dye-houses in the country.

The Piedmont Processing Company expects to be in position to offer their patrons any type of dyed or bleached, carded or combed yarn that they may have an occasion to use in addition to specializing in commission processing.

MILL NEWS ITEMS

IRVINE, KY.—Selection of the Cockrell property, lying between the old L. & A. railroad tracks and the W. & I. on the Irvine-Richmond highway, has been definitely decided upon as the location of the Hamilton Carhartt Overall Company factory which is soon to be moved from Detroit to Irvine. Announcement to this effect was made following the recent arrival in Irvine of W. Wylie Carhartt, who is in charge of operations in this city.

Bids for construction of the building are to be advertised at once, and as soon as the contract can be let workers will start laying the foundation.

A training school for employes was started some time ago and will continue in another building, now under lease, until the new factory building can be completed.

DANVILLE, VA.—The Blue Buckle Overall Company, a branch of the Lynchburg firm of the same name which recently began operations here, plans increased production as a result of being pressed for orders of denim overalls. R. F. Leininher, of Lynchburg, who is now in charge, states that the company will immediately increase its force from 70 to 150 operatives with further increases planned later on until 250 are employed.

Mr. Leininher said that it is the purpose of the company to employ about 500 people within 12 months provided the present demand for goods is maintained.

GASTONIA, N. C.—Organization of Hampton Textiles, Inc., the mercerizing concern formed here in connection with Textiles, Inc., was perfected by the election of the following board of directors: Thomas McConnell, R. B. King and Hugh McConnell, of Easthampton, Mass., J. H. Separk, A. G. Myers and A. K. Winget, of Gastonia.

Officers elected were as follows: Thomas McConnell, president; R. B. King, first vice-president; J. H. Separk, vice-president; J. L. Gray, vice-president; A. K. Winget, secretary and treasurer, Hugh McConnell, assistant secretary and treasurer, and R. G. Rankin, assistant secretary and treasurer. R. A. Bartlett was named plant manager.

Messrs. McConnell and King are leading and active officers in the big Hampton mill interests of Easthampton, Mass. They have been in the mercerizing and yarn finishing business for many years.

The Priscilla Mill, which is one of the most modern plants in the South, being constructed wholly of steel and concrete, is being equipped with machinery of Hampton Textile, Inc. At present the yarns of Textiles, Inc., are being sent to the Easthampton plant for finishing and processing.

Engineers are now engaged in perfecting the equipment layout for the Priscilla Mill plant.

Hose Sales Rank Third Among 2,204 Chain Stores

Hosiery accounted for 3.97 per cent of the business of 219 chains operating 2,204 stores with total sales of \$282,477,943, the 1930 Census of Distribution by the Department of Commerce revealed. It ranked third among sales of these women's apparel chains, being ahead of furs, millinery, shoes, handbags, children's and infants' wear.

1894

1931



Tough of Fibre but Flexible in Service

Feeds POWER Successfully—Due to its High Adhesive Quality and

WISE-LIKE GRIP on pulleys

Thus increasing Speed and Production

Write today for Engineering Manual

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Makers of a Complete Line of Leather Belting

"On the Mountain Top"

GRAYSTONE INN

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Including Meals

On U. S. Interstate Highway No. 21

(N. C. 26)

PINEHURST OPERATED

E. G. FITZGERALD, Manager

C. H. LYMAN, Asst. Mgr.

MILL NEWS ITEMS

CHATTANOOGA, TENN.—The Dixie Shirt Company, with J. H. Weitzner president and manager, this city's newest industry has opened at 810 Chestnut street. The company employs approximately twenty people in the manufacture of dress work shirts.

TULSA, OKLA.—Contracts for construction and equipment of a \$50,000 bleachery have been let by the Sand Springs Textile Mills, Inc., and the W. R. Grimshaw Company, which received contract for the building, is now engaged in the preliminary work. Announcement of the awards was made by H. B. Howell, superintendent in charge of operations. The Grimshaw concern also received contract for the reservoir.

Commander Mills, Inc., operating unit of the Sand Springs Mills, had charge of the contract letting. J. E. Sirrine Co., Greenville, S. C., will have general supervision of construction activities. The mills are located at Sand Springs, suburb of Tulsa.

Practical Textile Designing

(Continued from Page 11)

Fig. 16 illustrates the 3 1 1 twill.

1 1 1

CASES OF TWILLS

Twills are divided into two classes. First, even-sided twills; second, uneven-sided twills.

The first class are those twills that have an equal amount of filling on both sides of the fabric. Fig. 13 illustrates a twill of this class, having two threads raised and two threads lowered on each pick, so that the warp and filling are evenly balanced. Fig. 15 also illustrates this class.

The second class are those twills that do not have an equal amount of warp and filling on both sides.

Indicating Twills.—Fig. 9 illustrates a twill of this class, which has two-thirds of the filling on the face. Fig. 10 also illustrates this class, having two-thirds of the warp on the face.

WARP FLUSH TWILLS

These twills have warp predominating on the face, such as

2 3 4
—, —, —
1 1 2

FILLING FLUSH TWILLS

These twills have filling predominating on the face, such as

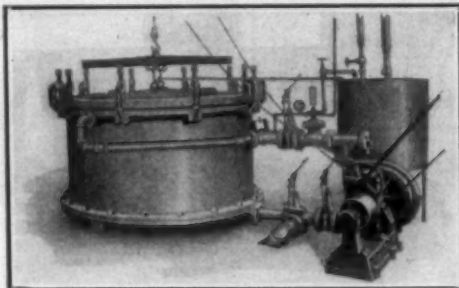
1 1 2
—, —, —
2 3 4

Fig. 17 illustrates a fabric constructed from the 2

2

twill weave.

MORTON RAW STOCK DYEING and BLEACHING MACHINE



Belt or Motor Driven

East: JOSEPH BARNES, New Bedford, Mass.; N. C., S. C., Va., and Tenn. Representative: CAROLINA SPECIALTY CO., Charlotte, N. C.

HAS MANY NEW IMPROVED AND PATENTED FEATURES

THE STEEL FOLLOW PLATE holds the BATCH OF COTTON in PERFECT condition while it is being dyed off. (Patented.)

The Double CIRCULATING FEATURE insures MORE EVEN AND LEVEL DYEING. (Patented.)

Floor space required: 8 x 14 ft. Head room: 13 ft. No special foundation necessary. Built from 1 lb. to 1000 lb. capacity.

MORTON Machines are Operating in the Largest Mills in the South and East.

Manufactured by

MORTON MACHINE WORKS

Columbus, Ga.

ALL STEEL
ECONOMY
FIRE PROOF
BALING PRESSES
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MEASURING
WINDING
STAMPING
TRADEMARKING
CALENDER
ROLLING

Cock-Eyed Justice

(Continued from Page 18)

zation that innocent little children were sleeping there, set off dynamite.

Fortunately neither the minister nor his children were injured but because the would-be murderers were members of a union the News and Observer thinks it was "cock-eyed justice" to send them to the penitentiary for one year.

The only element of "cock-eyed justice" in this case is that those higher up, who were responsible for the attempted crime, went free while their dupes and employees went to jail.

The dynamite which they used was paid for with American Federation of Labor money and most of the so-called strikers were not employees of the Clinchfield Mill but were employed or at least fed and supported by the American Federation of Labor.

Of the 22 men killed and wounded in the riot at the Marion Manufacturing Company, only five were employees of the mill or had been within six months of the beginning of the strike.

They were either employed with American Federation of Labor money as thugs or else went along to see the hired thugs beat up those employees who sought to enter their chosen place of employment.

If justice was less cock-eyed some of the higher-ups of the American Federation of Labor would accompany the dynamiters to the penitentiary.

Klein Speaks Weekly on World Business

The most recent developments in the business situation serve to emphasize the fact that American business is directly affected by world trade and economic conditions. In this connection, Marvin Shirley, district manager of the office of the U. S. Department of Commerce calls attention to the weekly radio talks by Dr. Julius Klein, assistant secretary of Commerce. Dr. Klein speaks each Sunday evening at six o'clock over the Columbia network, his subject being "The World's Business." His talks are particularly valuable at this time when world trade has such an important bearing upon the welfare of American business.

"Southern Summer School for Workers in Industry"

We have received several letters asking for information relative to a "Southern Summer School for Workers in Industry," which is held in the mountains of North Carolina every summer.

We have made an investigation which leads us to believe that it is primarily designed to form contacts with mill employees and teach them how to organize unions.

The school is managed by a lady from Maryland and most, if not all of the teachers, are advocates of unionization of Southern mills.

We are also informed that each summer lectures are delivered to the students by men from Brookwood Labor College which in recent years became so Communistic that even the Federation of Labor withdrew their support.

Hoffman, the man who organized the Marion, N. C., strike was a graduate of the Brookwood Labor College.

We strongly advise against financing mill employees to attend the "Southern Summer School for Workers in Industry." We do not believe that any of them will be benefitted by attending.

In the Manufacture of Booze

When a party of Prohibition Agents secretly advanced upon a still in Wilkes County, North Carolina, last week they found Garce Woody, a white man, standing waist deep in the mash and devoid of a thread of clothing.

We knew that many of the moonshiners used hen manure in the manufacture of corn liquor but we did not know that they were also flavoring it with the sweat and dirt of their own bodies.

The mountaineers of North Carolina have always made corn liquor and they have always made it in about the same way. The use of hen manure and concentrated lye is nothing new.

The drinker has, however, the satisfaction of knowing that the average corn is in itself powerful enough to be a disinfectant.

Additional Curtailment News

The six plants of the Woodside and Easley groups, manufacturing print cloth fabrics at Greenville, S. C., will observe a vacation period for the week including July 4.

The Norris Cotton Mills, print cloth manufacturers, of Catechee, S. C., will suspend operations on June 30 until Monday, July 6.

The Strickland Cotton Mills, makers of standard sheetings, at Valdosta, Ga., will be closed during the week ending July 4.

The Cramerton Mills, of Cramerton, N. C., manufacturers of gne goods and combed yarn, will be closed down July 3 to 13.

The Judson Mills, fine goods manufacturers at Greenville, S. C., will suspend operations for the week ending August 8.

The Commander Cotton Mills, of Sand Springs, Okla., the Autauga Cotton Mills, of Prattville, Ala., and Montala Mfg. Co., of Montgomery, Ala., will suspend operations for a vacation period from July 4 to 13.

**Attractive Holiday Vacations
Southern Railway System
Offers**

**MANY ATTRACTIVE TRIPS FOR YOUR
4TH OF JULY VACATION
GREATLY REDUCED ROUND TRIP FARES**

Round Trip Fares from Charlotte, N. C.

| July 3rd | | July 3rd | |
|---|---------|---|---------|
| New York | \$14.00 | Washington | \$12.50 |
| Philadelphia | 12.00 | Baltimore | 14.50 |
| Atlantic City | 13.00 | Norfolk | 9.00 |
| Pittsburgh | 15.00 | Richmond | 8.00 |
| Limit July 6th Good in Coaches only. | | Va. Beach | 9.50 |
| | | Limit July 8th. | |
| July 2nd | | July 2nd | |
| Atlanta | \$ 8.00 | Jacksonville | \$16.00 |
| Birmingham | 10.00 | Miami | 26.00 |
| Chattanooga | 10.00 | Tampa | 23.50 |
| Savannah | 7.50 | Havana | 50.75 |
| New Orleans | 23.00 | W. Palm Beach | 25.00 |
| Limit Atlanta July 7th. | | Limit Jacksonville July 10th. | |
| Chattanooga and Birmingham July 8th. | | Miami, Tampa, West Palm Beach, July 14th. | |
| Savannah July 9th. New Orleans July 12th. | | Havana July 21st. | |

Many other attractive reduced round trip fares. "Week-end" fares one fare plus 1-5 limit following Tuesday. Coach Excursion fares one fare plus 1-10 for the round trip on sale Friday, Saturday and Sunday morning. Sunday fares 1 cent per mile distance 150 miles or less on sale Sundays to points where round trip may be completed on Sunday. Good in Coaches only.

Ask Ticket Agents
Southern Railway System

DARY TRAVELERS

C If it's a DARY Ring Traveler, you can depend on it that the high quality is guaranteed—that the weight and circle is always correct, and that all are uniformly tempered which insures even running, spinning or twisting. **J**

Ask for Prices

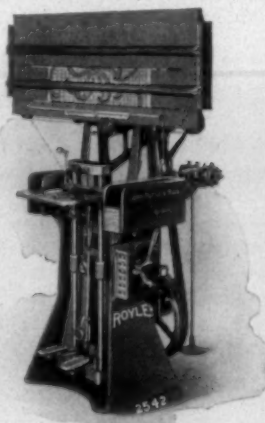
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PATERSON > NEW JERSEY



Everybody's Business

(Continued from Page 10)

A lot of people regard snails as a great delicacy, so snail-raising has become a lucrative occupation. A man in Maine is doing very well catching and selling hedge-hogs, and a man in California is meeting with much success in raising herds of corn-fed worms. This strange farm has produced 300,000 angle worms in six months. They are fed entirely on corn-meal, and when ready for sale are mosspacked in cans. It is estimated that the output of this farm will soon be able to take care of the entire demand of fishermen in the United States. Biological laboratories and medical schools are also in the market for angle worms.

An interesting industry is that devoted to raising goldfish. At present there are 770 acres of outdoor goldfish ponds in operation in the United States. About 50,000 goldfish can be grown per pond acre. The five-and-ten-cent stores sell most of them. Nearly 22,000,000 of these fish, having a value of about a million dollars, are now marketed annually.

An increasing quantity of valuable products is being obtained from our oceans, lakes and rivers. The sponge industry in Florida is adding materially to the wealth of the people. The large-scale collection of shells has opened up a satisfactory source of supply for the mother-of-pearl required in the button, knife-handle and lacquered-ware industries. The harvesting of seaweed is netting profits for a number of companies in various parts of the world. After being carefully processed the seaweed is used as a filling for pillows and mattresses, but is employed in the manufacture of a fine quality of gelatine.

New mechanical devices have increased the growth and reduced the hazards of pear diving and farming. Thousands of acres of warm salt water have been planted with millions of oysters, each of which has been subjected to a major surgical operation. A shrewd Japanese capitalist started a number of "pearl farms" that have grown steadily in productivity until today the output of precious stones average about \$2,000,000 annually. Certain parts of the warm waters of Florida and California should be suitable for this type of farming.

Out on the Pacific Coast we are witnessing the creation of an infant industry engaged in making a valuable jelly from agar moss. Lobster fishing, especially off the coast of Maine, continues to increase in a gratifying manner. Instead of using small boats and operating only pots, the lobsterman now employs a fast power boat and takes care of 300 pots in deep water. The culture of muskrats is turning hitherto worthless tide-water marshes and swamp lands into acres more valuable than the cultivated lands adjoining them. Our annual output of muskrats has a total value nearly half that of the sugar-beet industry.

There is no dearth of opportunities to make money even in this present time of slack business and unemployment. A smart exercise of ingenuity coupled with some original thinking will open up avenues of income for thousands of people who are willing to work. In succeeding articles I will discuss other uncommon vocations.

COLORED AND NOVELTY YARNS

4's to 20's single and ply in any twist; direct, developed, sulphur or indanthrene dyeings; solid colors, heather mixtures, black and white, also nubs, flakes, ratines.

OF THE HIGHEST QUALITY

Manufactured by

Lavonia Manufacturing Co.

Lavonia, Georgia

Modern Textile Machinery the Result of Research and Comprehensive Engineering

(Continued from Page 9)

for each of the major divisions of the textile industry. All the members of each family are built on the same framework and are made of the same parts except in the case of those which necessarily are different. Their construction was planned to render possible the manufacture of a wide range of fabrics in each line.

The looms that are used in the weaving of silk are a good example. Heretofore they were built on 16 different frames. Parts, generally speaking, were not interchangeable between the different models, and were not machined with sufficient precision to make those of any given model interchangeable without fitting and filing. Interchangeability could not be obtained because thorough machining was not possible. This situation existed for two reasons: First, because the parts were not designed in a manner such that modern machine tools could be used, and second, because the variety of parts rendered the use of expensive jigs and fixtures impossible under the existing scale of prices. In other words, a complete lack of standardization was an obstacle to giving the silk industry improved, flexible machinery at a price not exceeding or lower than that of the existing machinery.

To enable better machinery to be produced and sold at a lower price, a complete program of standardization was undertaken. There resulted:

1. One frame designed to serve as the base for the common models heretofore built on 12 different frames.
2. One group of parts arranged in the form of sub-assemblies constituting a series of mechanisms common to all models.
3. One group of parts arranged in the form of sub-assemblies, each of which is a mechanism peculiar to the construction of a given model.

Coincidentally all parts were designed to make possible the use of modern foundry and machine-shop equipment in their manufacture. The result is that the framework and all the parts that are attached to it are machined in jigs and fixtures. The accuracy of the product combined with its standardized form renders not only the individual parts but whole mechanisms interchangeable. A loom with plain bearings can be made into a roller-bearing loom by the substitution of roller for plain bearings. A non-automatic loom can be made automatic merely by the addition of a magazine. A loom equipped with one type of harness motion can be changed to do another type of work by an interchange of harness motions. Similarly, by minor substitutions, the lay can be converted from one box combination to another.

In the cotton and in the worsted fields similar progress has been made—in fact, as has been stated already, the first work of this sort was done in the former. The degree to which it has been successful is measured best by the results obtained in one of the several large installations of the new cotton loom.

1. In the cost of weaving a saving of 34 per cent has been made. The figures include all the items of labor and overhead mentioned earlier in this paper.
2. The yardage of second quality has been cut in half.
3. The average rate of production per loom is 11 per cent greater than that of the old machinery on the fabric that is being woven. In addition, the mill, now busy, on marquisettes, is in a position to alter its looms by the necessary attachments and to weave such fabrics as dress goods, fancy handkerchiefs, towels, rayon crepe, and even gingham, if it once more becomes marketable.

SUPERINTENDENTS AND OVERSEERS

We wish to obtain a complete list of the superintendents and overseers of every cotton mill in the South. Please fill in the enclosed blank and send it to us.

_____, 19____

Name of Mill_____

Town_____

_____ Spinning Spindles _____ Looms

_____ Superintendent

_____ Carder

_____ Spinner

_____ Weaver

_____ Cloth Room

_____ Dyer

_____ Master Mechanic

Recent changes_____



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Leather Belting
Most Economical

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**Once Tried
Always Specified**

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Sizol speaks for itself. It has been on the market for 26 years, and every old weaver knows of its efficiency—the young do likewise.

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| I. G. Moore | G. H. Jones | W. T. Smith |

Southeastern Chemists To Organize Chapter

Columbus, Ga. — With approximately fifty men interested in textile chemistry and coloring attending the meeting, the organization of the Southeastern section of the American Association of Textile Chemists and Colorists was perfected at a meeting here.

E. A. Feimster of the Eagle & Phenix Mills of Columbus was selected as chairman of the section. Other officers elected were: Roddey Field, Newnan Cotton Mills of Newnan, Ga., treasurer; Charles Ordway, professor of dyeing and chemistry at Auburn, secretary.

Columbus was practically selected as headquarters of the association. It was decided to hold three meetings a year in Columbus, with the preorganization meeting to be held in September.

The executive committee was announced as follows: W. F. Christman, Russell Manufacturing Co., of Alexander City, Ala.; M. T. Johnson, Hillside Mills of LaGrange; Prof. C. A. Jones, Georgia School of Technology of Atlanta; Tom Taylor, Newport Chemical Co. of Newnan; W. C. Jackson, Lowell Bleachery of Griffin and George Purvis (superintendent of the Bradley Manufacturing Co. of Columbus.

**SPINNING RING SPECIALISTS
FOR MORE THAN FIFTY YEARS**

**SPINNING RINGS
TWISTER RINGS
SILK RINGS**



**DIAMOND FINISH
TRAVELLER CLEANERS
TRAVELLER CUPS
GUIDE WIRE SETS**

**WHITINSVILLE
SPINNING RING CO.
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**Textile Wet Finishing Machinery
Water Power Equipment
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33 MILL STREET ORANGE, MASS.**

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for TOP ROLLS

means MORE PROFIT
because BETTER YARN,
FEWER BREAKS, and
FASTER PRODUCTION

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Sloan Cites Inadequacy of Prices

(Continued from Page 3)

dissipate its assets less rapidly by remaining idle than by operating even a full double shift. By producing at full capacity it is only multiplying its losses and helping to perpetuate a condition which forces it into the class of non-profit-making mills. Moreover, the longer a state of serious overproduction continues, the progressively smaller will be the manufacturing margin.

"The enlightened and constructive attitude of narrow sheetings executives generally in recognizing these facts to the extent of bringing their operations more in line with consumer requirements, gives promise that this disquieting situation will be alleviated during the coming months. It indicates that the facts are known and that remedial policies are being adopted. It is a further indication that the spirit of co-operative endeavor is constantly gaining ground and that it is being realized more than ever before that lone manufacturers cannot in the long run escape the penalty for pursuing policies of seeming temporary expediency which are contrary to the welfare of the industry as a whole.

"Furthermore, the present facts should provide food for thought by buying interests who may have been inclined to feel that narrow sheetings prices and margins would permit further reduction. A general state of continued instability is recognized as detrimental to the buyers as well as to the manufacturers. No business can succeed by bedeviling and beggaring its source of supply."

Committee D-13 Proposes New Standards

(Continued from Page 7)

Section III on Humidity (G. B. Haven, chairman).—This section is presenting for publication as tentative Proposed Tentative Methods of Determining Relative Humidity. It is also offering in the Appendix to this report a psychrometric table in a form which it believes will be found to be most convenient for use.

The recommendation of this section that a tolerance of ± 10 deg. F. in the temperature requirement of a standard atmosphere as defined in the Standard Definitions of Terms Relating to Textile Materials (D 123-30) has been approved by Committee D-13. This tolerance will be incorporated in subsequent revisions of specifications involving a standard atmosphere.

This section is continuing its study and collection of data in regard to moisture regain in various kinds and types of textile fibers and materials.

Subcommittee B-2 on Nomenclature and Definitions (A. L. Brassell, chairman).—This section has been working upon a revision of the definitions of terms now appearing in the Standard Definitions of Terms Relating to Textile Materials (D 123-30) and in the Tentative Definitions of Terms Relating to Textile Materials (D 123-30 T). It expects in the near future to be in a position to expand the lists of terms in the above definitions and thus to make available a fairly comprehensive glossary of textile fibers and materials.

Subcommittee B-4 on Bleaching, Dyeing and Finishing (W. M. Scott, chairman).—This section has only recently been organized under a new chairman and has had no opportunity as yet to function. It is at the present moment laying out a program of work. The chairman of this subcommittee represented the society at a recent preliminary inter-society conference on color specifications.

H. J. Ball is chairman of the committee, and W. H. Whitcomb, secretary.



Real Fountain Protection

These have Automatic
Self-Cleaning Filters

Big new catalog now ready
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FOR ALL TEXTILE PURPOSES

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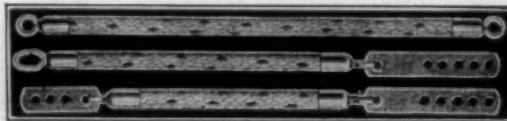
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Mass.

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Get Your Man!

Through A

Classified Ad

In The

Southern Textile Bulletin

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WOODWARD, BALDWIN & CO.

Established 1828

43 and 45 WORTH STREET, NEW YORK

Selling Agents for

SOUTHERN COTTON MILLS

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| St. Louis | Boston | Philadelphia | Los Angeles |
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65 Worth St., New York

Philadelphia

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Atlanta

New Orleans

San Francisco

CURRAN & BARRY

320 Broadway

New York, N. Y.

DOMESTIC

EXPORT

MERCHANDISING

JOSHUA L. BAILY & Co.

COTTON GOODS

New York.—The sharp rise in the price of cotton last week resulted in a very large demand for print cloths, broadcloths and a number of other goods. The amount of business handled was the largest for a long time and sales for the week was the most active for many years. Prices on print cloths and broadcloths were almost a cent higher before the week ended. It was estimated that sales of these two fabrics reached 100,000,000 yards.

The other divisions of the market were not so active, but shared to a lesser extent in the much better conditions that developed.

A moderate amount of business was done on sheetings. Some large orders were placed for denims for July-August delivery on a new price basis, 1½¢ a yard lower than that named for April-May deliveries. Moderate sales of other colored goods were made at low prices, both tickings and chambrays having sold at the lowest points reported for some years. Sheets and pillowcases sold in moderate quantities at extended discounts. New and lower prices are to be made shortly on bedspreads for fall delivery.

The fine goods market began to show more signs of activity before the week ended. It was indicated that a better business had been taken by a number of mills in combed broadcloth and other shirting fabrics. Combed lawns have been somewhat more active, although prices have not improved. Sales of fair yardages of curtain fancies were reported also. In rayon and cotton descriptions the market has seen a considerable yardage of crepes picked up at low prices occasioned by advantageous purchases of inferior rayon yarn, followed by a little firmer stand on the part of some manufacturers. The all-rayon crepes were in further light call at easier prices. All-rayon jacquards for drapery, bedspreads and other use were in better call, and mills in a number of instances were disposed to quote more firmly and to decline business whereon profits could not be made.

| | |
|---------------------------------|---------|
| Print cloths, 28-in., 64x60s | 35½ |
| Print cloths, 27-in., 64x60s | 3½ |
| Gray goods, 38½-in., 64x60s | 5 |
| Gray goods, 39-in., 68x72s | 5¾ |
| Gray goods, 39-in., 80x80s | 6¾ |
| Brown sheetings, 3-yard | 6¼ |
| Brown sheetings, standard | 6½ |
| Brown sheetings, 4-yard, 56x60s | 6 |
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Constructive Selling Agents

for

Southern Cotton Mills

J. P. STEVENS & CO., Inc.

44 Leonard St.

New York City

YARN MARKET

Philadelphia, Pa.—Definite improvement developed in the yarn market last week and spinners reported the best week that they had experienced in a long while. A much better inquiry developed as soon as cotton began to rise and sales were considerably larger than they have been for many weeks. The feeling in the market was more optimistic and the outlook for good business was regarded as very promising. There was every indication that very active buying is to develop.

Many buyers who have been postponing covering for a long time were in the market last week, some of them placing large orders for future delivery. Spinners prices were firm at the advanced prices, with indications that price are to move higher this week.

The heaviest volume of inquiries in two years developed in the local yarn market Tuesday and Wednesday. This follows a broadening movement which began late last week, to reinstate deliveries on standing contracts on which shipments were held up due to the depression. Representative houses here are now busy handling inquiries and arranging the prompt forwarding of contract yarns.

One house received inquiries involving approximately 1,000,000 pounds of yarn within a three-hour period. Houses are recalling members of their sales and office staffs now on vacation.

Yarn rates registered a general advance, but they still represent only cost on a 9-cent cotton basis, yarn sellers state.

Combed yarn inquiry was spread over a fair total of counts which were still available in some quarters at former low levels. On this account, there remained opportunities to cover at levels in line with those enumerated below. Spinners were growing fewer who would negotiate at these prices, making it essential for buyers to shop around more assiduously. It was expected that a day or two more will be required to leave convincing proof in the minds of spinners and buyers that the rising tendency is more than a temporary spurt.

| Southern Single Warps | | 30s | 24 1/2 |
|------------------------------|--------|--------------------------------|--------|
| 10m | 17 1/2 | 40s | 32 |
| 12m | 18 | 40s ex. | 34 |
| 16m | 18 1/2 | 50s | 41 |
| 20m | 19 1/2 | 60s | 47 |
| 26m | 23 | | |
| 30s | 24 1/2 | | |
| Southern Two-Ply Chalk Warps | | Duck Yarns, 3, 4 and 5-Ply | |
| 8s | 17 1/2 | 8s | 18 |
| 10m | 18 | 10m | 18 1/2 |
| 12m | 18 1/2 | 12m | 19 |
| 16m | 19 | 16m | 19 |
| 20m | 20 | 20m | 20 |
| 24m | 23 | | |
| 30m | 24 1/2 | | |
| 36m | 31 1/2 | | |
| 40s | 32 | | |
| 40s ex. | 33 1/2 | | |
| Southern Single Skeins | | Carpet Yarns | |
| 8s | 17 | Tinged Carpet, 8s, 3 and 4-ply | 16 |
| 10m | 17 1/2 | White Carpet, 8s, 3 and 4-ply | 17 |
| 12m | 18 | Part Waste Insulating Yarn | |
| 14m | 18 1/2 | 8s, 1-ply | 15 1/2 |
| 16m | 19 | 10s, 2, 3 and 4-ply | 16 1/2 |
| 20m | 19 1/2 | 12m, 1-ply, and 8-ply | 16 1/2 |
| 24m | 22 1/2 | 16m, 2-ply | 17 1/2 |
| 26m | 23 | 20s, 2-ply | 18 1/2 |
| 28m | 24 | 26m, 2-ply | 19 |
| 30s | 24 1/2 | 30s, 2-ply | 22 1/2 |
| Southern Two-Ply Skeins | | Southern Frame Cones | |
| 8s | 17 1/2 | 8s | 17 |
| 10m | 18 | 10m | 17 1/2 |
| 12m | 18 1/2 | 12m | 18 |
| 14m | 19 | 14m | 18 |
| 16m | 19 1/2 | 16m | 18 1/2 |
| 20m | 20 | 18m | 19 |
| 24m | 23 | 20m | 19 1/2 |
| 26m | 23 1/2 | 22m | 20 |
| | | 24m | 21 |
| | | 26m | 22 |
| | | 28m | 22 1/2 |
| | | 30s | 23 |

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VISCOSE CO., Johnston Bldg., Charlotte, N. C., H. Wick Rose, Mgr.

VOGEL CO. JOSEPH A., Wilmington, Del. Sou. Office: St. Louis, Mo.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Offices: Whitin Bldg., Charlotte, N. C.; W. H. Porcher and R. I. Dalton, Mgrs.; 1317 Healey Bldg., Atlanta, Ga. Sou. Reps.: M. P. Thomas, Charlotte Office; I. D. Wingo and C. M. Powell, Atlanta Office.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass. Sou. Rep.: Webb Durham, 2029 East 5th St., Charlotte, N. C.

WICKWIRE-SPENCER STEEL CO., 41 E. 42nd St., New York City, Sou. Rep.: James A. Greer, 50 Rutherford St., Greenville, S. C.

Cotton Bagging Progress

Enthusiastic response has been received from a large number of cotton mills to the program proposed by Casson J. Callaway, president of the American Cotton Manufacturers' Association, whereby mills would pay for seven extra pounds of cotton when the bale is wrapped in 100 per cent cotton bagging instead of jute. The idea, which is put forth in order to make it feasible for farmers to use cotton covering, is being widely endorsed among the manufacturers, and prospects seem strongly in favor of its general adoption.

The advantage to the Southern cotton farmer of using cotton bagging instead of jute is obvious. To cover the average cotton crop would mean an additional market for several hundred thousand bales of cotton besides giving considerable additional business to American mills. To make the proposition economically sound, of course, the cotton bagging should be procurable at a price comparable with that of jute, and the understanding is that at least one large textile concern has perfected a satisfactory cotton bagging that can be sold on that basis. The only deterrent, then, is the fact that cotton is usually sold in the domestic markets on the basis of gross weight, and since jute bagging weighs seven pounds more than cotton the farmer would have to put in seven more pounds of cotton to make the gross weight the same. If the manufacturers of the country will pay for seven extra pounds of cotton, the proposition to the farmer is equalized.

The plan would not affect the export sales of cotton, it is understood, since cotton in the export trade is sold on a basis of net weight. The fact that there is this difference in practice between domestic and foreign marketing of cotton has frequently led to the suggestion that a uniform policy of selling cotton on the basis of net weight be adopted. If that were done, it would undoubtedly facilitate the use of cotton wrapping.—Greenville Daily News.

More Mills Aree to Buy Cotton Bales in Cotton

Gastonia, N. C.—The King Cotton Syndicate of this city announces that many cotton manufacturers in this and nearby counties are giving favorable consideration to the matter of using cotton baled in cotton bagging.

The Dixon and Trenton Mills, the Manville Jenckes Co., Gastonia

Thread Yarn Mills, Inc., Piedmont Mills, all of Gastonia, the Globe Yarn Mills, the Catawba Spinning Co., of Mount Holly, the Melville Manufacturing Co., at Lincolnton; the Lola Manufacturing Co., and the Alba Twine Mills, of tSanley; American Cotton Mills, 1 and 2 of BessemerCity; the Locke Cotton Mills, of Concord; and the Green River Manufacturing Co., of Tuxedo say that after thorough investigation they are willing to follow the lead of Textile, Inc., in making the following statement:

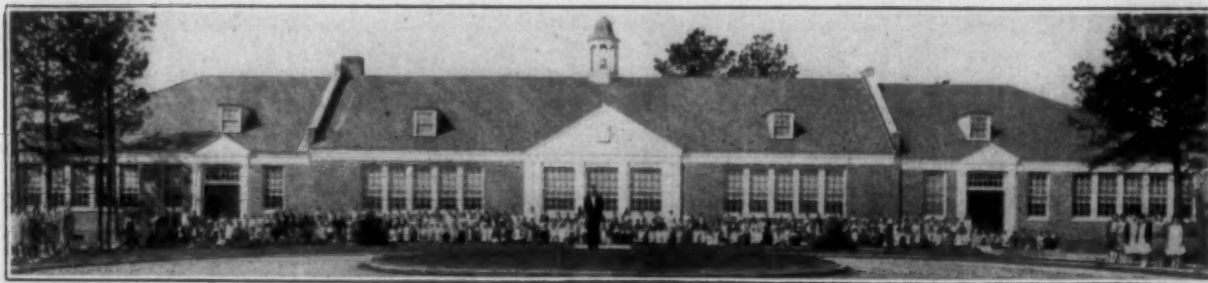
"We will allow seven pounds extra weight to be added to all bales of cotton wrapped in standard 100 per cent cotton bagging, with tare weight not exceeding 17 pounds, for the next cotton year, or until July 1, 1932."

This is a splendid forward move in the plan to have the incoming cotton crop baled in 100 per cent standard cotton bagging. The co-operation given to this idea by the manufacturers all over the South is quite remarkable, and shows their willingness to take the first step toward working out a sound economic basis for this new use of cotton.

Arthur W. Palmer, in charge of the division for cotton marketing, Department for Cotton Marketing, Department of Agriculture, Washington, D. C., in a letter to the King Cotton Syndicate, says: "The principal disadvantage of cotton fabric for cotton bagging seems to be economical rather than mechanical, that is the cost of cotton bagging, and the disadvantage of its light weight in a marketing system using gross weights. Of these the latter seems to be more serious, because under a system of gross weight selling there exists an economic barrier to the use of cotton bagging equal to the difference in pounds between a cotton pattern and a jute pattern times the price per pound of cotton."

It is to be seen that the new type cotton bagging as developed by the American Mills, of Bessemer City, and the Manville Jenckes Co., of Gastonia, eliminates Mr. Palmer's argument as regards the cost of cotton bagging, as both mills are putting out a good, heavy, 100 per cent cotton bagging that can favorably compete with jute bagging in price.

With the manufacturers willing to take the step of pledging that the farmer who uses all cotton bagging will suffer no loss by the gross weight per bale, there seems to be ahead of us smooth sailing toward a cotton wrapped cotton crop.



Joanna Cotton Mill School Building, Goldville, S. C.

Mill Village Activities

Edited by Mrs. Ethel Thomas—"Aunt Becky."

Erlanger, N. C.—Erlanger Cotton Mill

THE VILLAGE IS ONE OF THE PRETTIEST—PROBABLY THE PRETTIEST IN THE STATE

Broad streets, nice cottages—mostly bungalow style—some of them shingled; lots of evergreen shrubbery, pretty flowers and shade trees. Just our luck to miss seeing the genial treasurer and manager, Mr. J. M. Game-well.

COMMUNITY ADVANTAGES

There is a large club house, very attractive teachery—"Elaine Lodge," nursery, kindergarten, nice churches and school. But ask any boy in the village what and who he likes best in Erlanger, and 99 per cent will answer, "The swimming pool, and our instructor, Mr. Neese."

Mrs. Davis, community supervisor and the writer visited this outdoor swimming pool during the period set aside for boys 10 to 14 years of age; there were around 30 having the time of their lives, and they kept coming. Mr. Neese is a typical life saver—remarkably muscular and capable.

THE ERLANGER DAIRY

Superintendent Rabb and I visited the dairy where 42 Jersey cows are cared for "like folks." The most complete modern cooling, bottling system and pasteurizing plants we have ever seen, are right here. The buildings are attractive and of course, sanitary, and the milk delicious. We drank some and know.

LUNCH WITH MR. AND MRS. FREEMAN

After a drive to the dairy and over the village, Mr. Rabb carried the writer to the home of our friends, Mr. and Mrs. W. G. Freeman, where we had a feast of good things, and met their son, who is home on vacation from Berea College, Berea, Ky. They have a daughter who is a trained nurse. Enjoyed being in this lovely home.

INSIDE THE MILL

We must not forget to mention the pretty uniforms worn by girls. Those in carding and spinning rooms, wear green, those in weave room Copenhagen blue, and those in cloth room, rose pink,—all with white trimmings. These uniforms are all 12 inches from the floor, have elbow sleeves, and caps to match.

We agree with Mr. J. J. Moon, overseer cloth room, that *his* girls are lovely and look good enough to eat in their pretty rose-pink uniforms. Mr. Moon says he likes the Bulletin, but somebody has to come for his subscrip-

tion—and Becky Ann will see that she's on time after this, so he won't miss a number.

Macon, Ga.—Bibb Mfg. Co. Proud of Fifteen Hundred Pupils in School

CHILDREN IN MILL VILLAGES HAVE EVERY ADVANTAGE

Children of cotton mill communities in Georgia, are answering uninformed or misinformed critics of educational work in such communities in a way that calls for no comment by mill management. It has been generally known in recent years, although not as generally accepted, that the progressive cotton mill executives were supporting and insisting, upon an extensive educational program. The old order when parents did not seem to care and children did not desire to attend school has passed.

Take for example what is going on among the communities of the Bibb Manufacturing Company at Macon, Porterdales, Columbus and Taylor Mill. Reports just made available disclose the following facts:

There are, from these communities, a total of 87 pupils in high school, divided as follows: Macon, 40; Bibb City, (Columbus) 29; Taylor Mill, 3; Porterdales, 15. This past term seven of the Bibb pupils graduated and in grammar school promotions a number of Bibb children won first honor or tied for the first honor. At Virgil Powers school, in Macon, two Bibb pupils were voted high honors by their class-mates. Miss Alice Mann was voted the best all-round student and Albert Tanner was voted the best all-round boy of the seventh grade. Miss Mabel Morrow, daughter of Overseer F. A. Marrow of Payne City (Macon), was among the graduates from Lanier High School for Girls, and among the young men graduates was Joe Pittman, son of the Bibb Company's factory manager.

Miss Inez Biggers of Bibb City won the \$25 prize at Sneads Seminary for being the best all-round student; her play was used at the commencement exercises and she won high honors in her class room studies. Jesse Kite, Jr., son of Overseer Jesse Kite of No. 1 Mill, Macon, was one of five boys in a tie for first honor at Fort Hawkins school, and four of the No. 1 pupils made an average of "A" every month of the school year. They were Vera Purvis, 1-A; Violet Beck, 2-A; Mozelle Wade, 3-B; Lillian Layfield, 3-A.

Ninety-four of the Bibb City pupils made a perfect attendance mark for the year just closed and 109 were 100 per cent in attendance at Porterdale, for the year. The average at Bibb City, Columbus, for the school year was 95.77. The total enrollment during the year approximated 1,500 in the several Bibb communities.

Belmont, N. C.—National Yarn Mill

For the third time we went to see Superintendent I. R. Ballard and were "scared half to death" when his little son, Bobby, informed us that Mr. Ballard had "*gone to the chain gang!*"

We noticed that charming Mrs. Ballard did not seem the least worried over it—and finally Mr. Ballard came in; then we learned he had visited and made a deal with the chain gang to have some work done.

It would be hard to find a prettier or more shady retreat than the large lawn in front of the mill and Superintendent Ballard's nice home.

R. L. STOWE, MILL OFFICIAL

Had long wanted to meet Mr. R. L. Stowe, and finally caught a moment when he could see me. Was truly glad I hadn't given up trying, for we have never met a more genial or courteous gentleman.

He is secretary and treasurer of the National, Chronicle and Imperial Yarn Mills, treasurer of Stowe Spinning Company, and president of Stowe Thread Company. And with all his duties as mill executive, he finds time for active service in the educational, religious and social life of Belmont, and is deeply interested in the welfare of his employees.

The Stowes, Linebergers and Bumgardners have made Belmont one of the best towns in the State. Of the 18 textile manufacturing concerns, one or more of the above names will be found among the officials. For proof see Clark's Textile Directory.

Greensboro, N. C.—Proximity Mfg. Co.

THE GREAT WORK FOUNDED BY CEASAR CONE, DECEASED, ABLY CARRIED ON BY HIS SUCCESSORS

Aunt Becky had a delightful visit to Proximity recently; was cordially greeted and welcomed by the genial, wide-a-woke and alert president, Mr. Bernard M. Cone, and that indefatigable worker and promoter of high ideals, Mr. J. E. Hardin, secretary and general manager.

In talking with these great textile leaders, we caught a vision of their aims in the battle of life. They have declared war on Selfishness, that foe of mankind, which is the foundation for evils that wreck the lives of men.

On the office wall hangs a fine portrait of the deceased Ceasar Cone, whose warm heart and tender sympathy made him one among the most loved and respected of men. Many were the courtesies, and kindnesses that he extended to "Aunt Becky," and it was he who gave us information and inspiration to write "The Better Way"—one of our most popular books.

As we looked upon his likeness, so true to life, with that benign and loving expression happily caught and reproduced by the artist, it seemed to us that he was looking on and approving the continuation of the work that he started and loved so well.

COMMUNITY WELFARE AND EDUCATION

If Mr. Bernard Cone has a hobby, it is education. He insists that every child goes to school, and if for any reason one is absent, it is looked up at once, and the cause recorded. If it is something like need of books

or proper clothing, these are forthcoming. If the child is sick, it is cared for by trained community nurses.

In Proximity Mill school, recently ended, there were 780 pupils, and more than 150 won prizes offered by Mr. Bernard Cone. At White Oak (belonging to Proximity Manufacturing Company) there were 765 pupils, and 147 won prizes.

One pupil, graduating from seventh grade, had *never* been absent nor tardy in all the six or seven years in school. Who can beat that?

There are various clubs for men, women, boys and girls. There are five welfare workers and two assistants, also three trained nurses. Just recently we published a report of the Cotton Dress show, sponsored by the Women's Club of White Oak.

SCHOOL FOR COLORED

A school is provided for children of colored employees of the several mills, and this had an enrollment of 121 which made a fine record.

A wonderful harvest for good is found in the golden fruits of sympathetic understanding and expressed in deeds of real service for men by the big-hearted officials of Proximity Manufacturing Company.

Ware Shoals, S. C.

YOUNGSTERS IN SWIMMING

There are more tots and young children able to swim in Ware Shoals than almost any other town of its size in this section. Some of the best swimmers to frequent the "Y" pool are boys and girls around twelve years of age.

The pool here has paid for itself in that respect over and over again. Stunts which were considered feats for grown ups back in the old creek bank days are performed with the greatest ease by mere babies, now.

MIDGET BASEBALL LEAGUE

The Midget Base Ball League opened with a bang Tuesday morning and some seventy odd boys under fifteen years of age are having the time of their lives. Drop by the playground in front of the Y. M. C. A. and watch the kids hit 'em over. They play each Tuesday, Wednesday and Friday morning at 9:30 o'clock.

A Mistake Corrected

Box 316, Draper, N. C.,
June 26, 1931.

Mrs. Ethel Thomas,
Charlotte, N. C.
Dear "Aunt Becky:"

I want to assure you that I appreciate your write-up in the Bulletin of June 25th in regards to myself as a "chess player," though it should be a checker player, as there is quite a difference in chess and checkers, and I would hate to have chess players come to play me when I do not know anything at all about the game.

I do play checkers when I have the opportunity and will be delighted to have any one come here for a game, as I do right much running around myself when I can spare the time.

I will thank you very much if you will correct this write-up in your next issue.

I sure do thank Mr. Truslow for his words of praise and hope that I will always be able to merit my superior's best wishes. I have been here at Draper for 23 years and what little success that I have had, I owe it to being loyal at all times, coupled with hard work.

Yours very sincerely,
G. C. SWINNEY.

CLASSIFIED ADS.

WANTED position as Overseer Spinning, Twisting, Winding or Overseer Carding and Spinning. Married, age 38; wife and three children. Been overseer for more than 15 years; now overseer carding and spinning. Will go anywhere. Address Overseer, care Southern Textile Bulletin.

Address Wanted
Anyone knowing the address of Earl Landreth, 18 years of age, weight 155 pounds, about 5½ feet tall, dark hair, dark brown eyes, and dark complexion, who left home in April. Address any information to his father, J. O. Landreth, care Amazon Cotton Mills, Thomasville, N. C.

COTTON mill superintendent or manager—open for employment after August 1. Glad to have opportunity for furnishing references or other desired information upon request of interested parties. Address S. C. N., care Southern Textile Bulletin.

WANTED—Position as assistant or superintendent of Yarn Mill where the mill wants the production at the right cost per pound. Married, age 39, wife and three children. Will go anywhere. Now general overseer carding and spinning. Address S. D. G., care Southern Textile Bulletin.

Classified Rates

Effective April 23, 1931

Set Regular "Want Ad" Style, without border or display lines—4c per word, each insertion.

Minimum charge, \$1.00. Terms—Cash with order.

Set Display Style, with headings in larger type and border—\$3.00 per inch, one insertion.

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DAVID CLARK, President

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Charlotte, N. C.

World Use of U. S. Cotton in May 943,000 Bales

The world used approximately 943,000 bales of American cotton in May, compared with 1,026,000 in the corresponding month last season and 1,339,000 in the same month the season before last, according to the New York Cotton Exchange Service.

Total consumption during the 10 months of the season ending May 31, was about 9,825,000 bales, against 11,261,000 in the same period last season and 12,806,000 two seasons ago. Consumption in May was smaller than in April both in the United States and abroad. The United States used 451,000 bales in May, against 492,000 in April, while foreign countries in the aggregate used approximately 492,000 bales in May, against 504,000 in April.

"During June and July last season the world used only 1,760,000 bales, or an average of only 880,000 per month," says the Exchange Service. "It seems probable that it will consume somewhat more than this in the last two months this season, although the trend is downward in the United States and it is about horizontal in foreign countries on the whole. If it be assumed that consumption in the last two months of the season will average 900,000 bales per month, or aggregate 1,800,000 bales, total consumption this season will be about 11,100,000 bales. This would compare with 13,021,000 consumed last season, 15,226,000 two seasons ago, and 15,576,000 three seasons ago."

New Uses for Cotton

Once more cotton finds its place in the sun! Wideawake apartment house owners, clubs and individuals with an urge to the amenities of living are taking their cue from the sun-bath vogue in California, where sun enclosure installations have gone the limit in color and attractiveness, according to Marvin Shirley, manager of the Carolinas office of the Bureau of Foreign and Domestic Commerce.

Roof-top parlors, solaria and sun-bath gardens, walled in with pleasantly decorated cotton duck, have been arranged in great numbers all over the country, affording the occupants of the residences and apartments the sunshine for health, relaxation and sun-tan and at the same time creating a new and extensive use for cotton materials.

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WHEN you see a manufacturer's advertising in the pages of your business paper, you may know that **THAT** manufacturer is not only efficient in production, but that he also knows how to **DISTRIBUTE** effectively and economically.

And that is important to you as a purchaser of manufactured articles. For the cost of distribution enters into the cost of everything you buy. Efficiently distributed goods cost less, quality for quality, than goods distributed through haphazard methods.

Manufacturers who advertise in business papers use the shortest, most direct, most economical way to reach you with a selling message. They are buying concentrated circulation **WITHOUT WASTE**. They are applying advertising dollars wisely where those dollars will reduce other selling costs.

Through their selection of efficient means to advertise, they are giving proof that the products they offer to you bear the minimum cost of distribution—that those products, quality for quality, are lower in cost than products distributed either laboriously **WITHOUT** advertising or carelessly with **WASTEFUL** advertising.

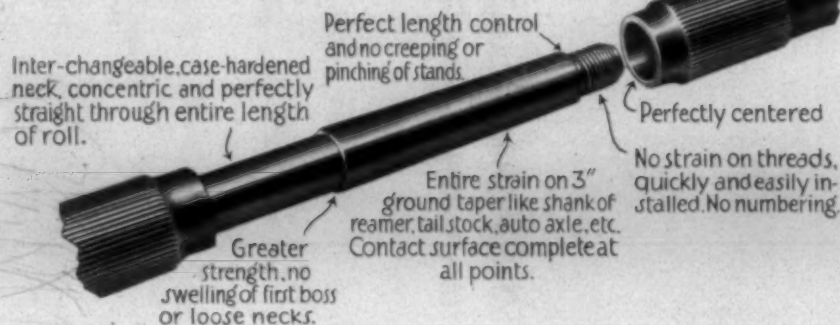


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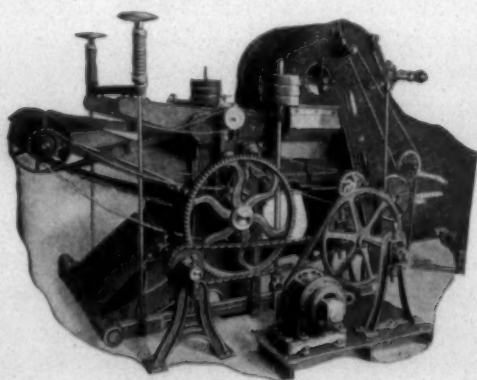
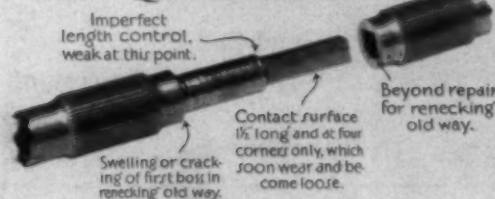
Better refluting with no lap-ups on any number or grade of cotton.

Let us rework a frame of your rolls on approval, with our guarantee.

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OLD SQUARE NECK



Continuous Hydro-extractor

This machine will expel waste dye and bleach liquors from saturated cotton, at the same time passing it forward to your Drying Machine through a continuous series of operations.

Gives more uniform results with less expenditure of energy and avoidance of intermittency. Many other advantages.

Reduce your costs by hydro-extracting saturated fibers this modern way.

C. G. Sargent's Sons Corp., Graniteville, Mass.

*Builders of Cotton Stock Drying Machines
Yarn Conditioning Machines, etc.*

Fred H. White, Southern Representative, Charlotte, N. C.

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